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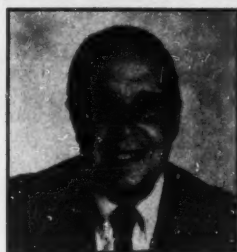
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Looking Things Over

The NPN Factbook is mainly about numbers. And numbers, sometimes, can be as dry as dinosaur bones. With careful and persistent study, however, they can stretch our awareness and knowledge of what's happening—and what's not happening—in this complex industry in which we all make our living.

Sometimes the numbers can be misleading. For years, the numbers have been telling us that foreign firms have been grabbing up U.S. petroleum assets—downstream and upstream—at a dizzying pace; from \$15.2-billion in 1981 to \$35.6-billion in foreign direct investments by 1987. In some quarters (mostly non-industry sources), these growing numbers were viewed with alarm.

Most industry analysts believed this growth in FDIs in U.S. petroleum would continue unabated. Last year, in fact, our Factbook editors joined this chorus and projected a final FDI growth of about 6% to around \$37.5-billion in 1988. Imagine our surprise, then, when the new Energy Information Administration report surfaced this year showing a net decline in FDIs of almost \$1-billion (See page 33). Are foreign firms losing interest in the U.S. oil industry. Not hardly. But the pace of FDI growth appears to be slowing and will probably continue at a more moderate rate in the years ahead. At any rate, we're getting out of the forecast business in this area.

One startling piece of data reported in this year's Factbook is the "unprecedented" plunge of 77% in overall convenience store profits, as detailed by the National Assn. of Convenience Stores; this despite record industry revenues (See page 141). As we can see now, the big reason for this drop was the financial drubbings experienced by major players in the field—notably Southland and Circle K. More interesting still, smaller companies (under 200 stores) were four times more profitable than the bigs.

I think there's a lesson in those numbers: Smaller operators—C-store and petroleum—are frequently getting better results and making more money, comparatively, than their larger counterparts. It appears that innovation, sensible operating and financial procedures, plus a good feel for their local markets are providing the big payoff for these smaller marketers.

—Donald M. Smith

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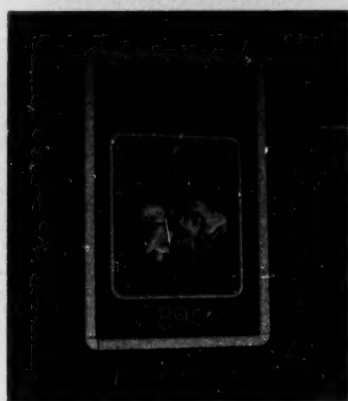
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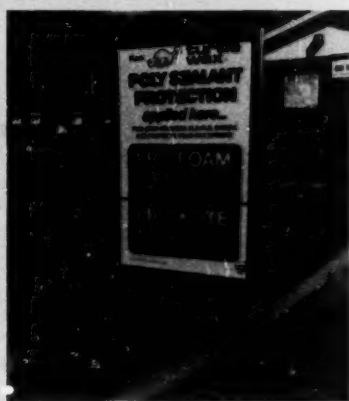
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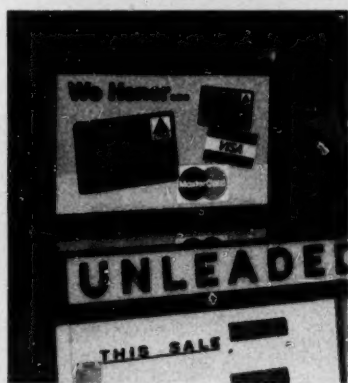
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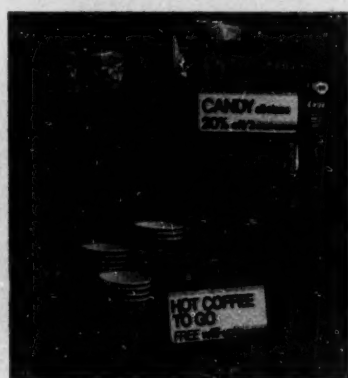
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Ranking The Top 22 Marketing Companies

	Total Assets		Gross Revenues		Net Income		Sales Ranking Among Top 500 (a)	
	1989	1988	1989	1988	1989	1988	1989	1988
Exxon	1	1	1	1	1	1	3	3
Mobil	2	2	2	2	5	2	6	6
Chevron	3	3	4	4	12	4	11	11
Amoco	4	4	5	5	6	3	12	12
Shell	5	5	6	6	8	9	13	13
Texaco	6	6	3	3	2	6	10	8
Arco	7	8	7	7	4	6	22	17
BP-America	8	7	8	8	3	5	NR	22
Phillips	9	9	9	10	13	10	30	31
Conoco	10	10	10	9	10	13	NR	NR
Unocal	11	11	12	11	11	12	40	47
Marathon	12	12	13	13	9	11	NR	NR
Coastal	13	14	11	15	15	16	54	54
Sun	14	13	15	12	19	21	46	46
Amerada Hess	15	15	16	16	17	16	89	110
Pennzoil	16	16	19	20	7	7	163	201
Ashland	17	17	14	14	20	14	58	55
Kerr-McGee	18	18	17	18	18	19	144	157
Murphy	19	20	22	21	21	20	241	253
American Petrofina	20	19	18	19	16	17	148	164
Citgo	21	21	20	17	14	15	105	NR
Diamond Shamrock	22	22	21	22	22	22	206	244

(a) As ranked by Fortune 500, April 1990. NR—not ranked by Fortune 500.

10 Oil Marketers Fatten Their Corporate Structures in 1989

If assets are to be considered the prime criteria for glory, almost half of the nation's top oil marketers can look back on 1989 and say it really wasn't such a bad year after all.

There are 22 oil companies in this elite group and 10 of them saw their assets grow to record highs in the calendar year that ended last Dec. 31.

Exxon led the parade with a 12% increase in its corporate assets, from \$74.3-billion in 1988 to \$83.2-billion in 1989. That \$9-billion growth difference is more than most second tier oil companies are worth in their entireties alone (see chart on next page).

Mobil, Chevron, Amoco, Shell and Texaco ranked second, third, fourth, fifth and sixth in the standings. None had any growth increases comparable to Exxon's 12%,

however. Mobil and Chevron had increases of less than 1% while Amoco and Shell were in the 1.6% area. This was, for the record, Exxon's sixth consecutive year of increases in its total assets.

Biggest percentage increases in 1989 were Murphy Oil (33.0%); Amerada Hess (27.8%) and Citgo (18.2%). Those percentage relationships are deceiving, however. For example, a 33% growth to Murphy is roughly \$700-million to \$800-million; a 12% increase to Exxon is \$9-billion, as noted above.

The 10 oil marketers who posted new highs in assets in 1989 were Exxon, Amoco, Shell, Coastal, Amerada Hess, Pennzoil, Ashland, American Petrofina, Citgo and Diamond Shamrock.

The others—Mobil, Chevron, Texaco, BP-America, (Continued on next page)

Oil Company Rankings by Marketers With

(In billions of dollars)
Assets (a)

	1989	1988	1987	1986	1985
Exxon.....	\$83,219	\$74,293	\$74,042	\$69,484	\$69,160
Mobil.....	39,080	38,820	40,272	39,412	41,792
Chevron.....	33,884	33,968	34,101	34,853	38,988
Amoco.....	30,430	29,919	25,122	27,706	25,198
Shell.....	27,599	27,169	27,571	26,214	26,528
Texaco.....	25,636	26,337	33,773	34,940	37,703
Arco.....	22,161	25,514	22,890	21,604	20,279
BP-America.....	20,439	22,452	22,807	20,169	18,330
Phillips.....	11,256	11,968	12,111	12,433	14,045
Conoco.....	10,392	9,745	9,146	9,073	14,115
Unocal.....	9,257	9,508	10,062	10,248	10,797
Marathon.....	9,246	8,966	9,091	11,022	10,074
Coastal.....	8,773	7,865	7,889	7,857	8,258
Sun.....	8,659	8,616	12,580	12,395	12,923
Amerada Hess.....	6,867	5,372	5,305	4,914	6,219
Pennzoil.....	4,882	4,860	2,805	3,369	3,300
Ashland.....	4,458	4,254	4,074	3,805	3,926
Kerr-McGee.....	3,232	3,123	3,132	3,090	3,702
Murphy.....	2,750	2,068	2,067	1,990	2,661
American Petrofina.....	2,505	2,356	1,836	1,777	1,817
Citgo.....	1,587	1,343	1,191	1,209	1,274
Diamond Shamrock (*).....	1,027	843	—	—	—

(a) Boldface totals indicate peak years of individual companies.

(Asset Values, continued)

Arco, Phillips, Conoco, Unocal, Marathon, Sun, Kerr-McGee and Murphy—have to look to the past for their peak years of assets.

Mobil, Chevron, Texaco and Phillips, for example, set their highs in 1984. For Conoco, Unocal and Sun, it was the year after. Marathon peaked in 1986, BP-America in 1987 and Arco in 1988.

The '80s have been rough on some companies. Phillips, victimized by a take-over attempt by a Texas raider, is only half the size it was in 1984. Texaco, which lost a bundle to Pennzoil in a historic legal case and almost foundered as a result, is down 47% from its 1984 high. Sun, mostly by choice, is also about one-half the size of its old self. Chevron and Conoco likewise have reduced their corporate structures by one-third.

Diamond Shamrock was a new addition to the NPN compilations in 1989. The listing takes into consideration only those oil marketers who have assets of \$1-billion or more.

Prior to 1987 Diamond Shamrock was a fully integrated oil company with production, refining, marketing and

transportation. In January 1987 it established two separate companies—upstream and downstream. Diamond Shamrock Marketing and Refining had assets of \$843-million in 1988 and \$1.0-billion in 1989.

A company's asset value, of course, does not provide a complete picture of its current financial status. A comparison of these asset tables with the oil companies' annual report information for 1989 (See page 18) indicates that a company's changing asset base does not always go hand in hand with that company's financial performance in a given year.

A wrong turn by the Exxon Valdez oil tanker, for example, had a greater impact in 1989 on that company's financial profile than its \$9-billion increase in total assets (although that could change in future years, of course). For 1989, Exxon's earnings were a third below the profit achieved the year before. Diamond Shamrock's 22% increase in assets was offset by a 48% decline in earnings.

Murphy's 33% gain in assets, on the other hand, was accompanied by a 12% increase in revenues and a 20% increase in profits over 1988.

Assets of \$1-Billion or More

1984	% Change				Ranking by Year				
	'89 vs. '88	'88 vs. '87	'87 vs. '86	'86 vs. '85	1989	1988	1987	1986	1985
\$83,278	12.0%	0.3%	6.6%	0.5%	1	1	1	1	1
41,851	0.7	(3.6)	2.2	(5.6)	2	2	2	2	2
45,404	0.1	(0.4)	(2.2)	(10.4)	3	3	3	4	4
25,734	1.7	19.1	6.0	(5.9)	4	4	6	6	6
23,729	1.6	(1.5)	5.2	(1.2)	5	5	5	5	5
37,774	2.7	(22.0)	(3.3)	(7.3)	6	6	4	3	3
21,362	0.4	(6.0)	6.0	6.5	7	8	7	7	8
17,487	3.0	1.6	13.1	10.0	8	6	4	3	3
16,955	(5.9)	(1.2)	(2.4)	(11.7)	9	9	11	11	11
13,497	6.2	6.5	(29.6)	(35.7)	10	10	13	10	10
10,205	(2.0)	(5.5)	(1.8)	(5.1)	11	11	12	14	13
9,949	3.1	(1.4)	(7.5)	9.4	12	12	14	13	14
3,925	11.4	(1.6)	1.3	(4.5)	13	14	15	15	15
12,789	1.0	(31.5)	1.5	(4.1)	14	13	10	12	12
8,353	27.8	1.3	8.0	(21.0)	15	15	16	18	16
3,243	—	59.7	(16.7)	2.1	16	16	19	19	19
4,037	4.8	4.4	7.1	(3.1)	17	17	17	17	18
3,771	6.7	(0.3)	1.4	(16.5)	18	18	18	20	21
2,685	33.0	0.0	4.4	(25.8)	19	20	20	21	20
1,706	6.3	28.3	3.3	(2.2)	20	19	21	22	22
1,246	18.2	12.6	(1.5)	(5.1)	21	21	22	23	23
—	21.8	—	—	—	22	22	—	—	—

(*) Diamond Shamrock was split into two companies—upstream and downstream in April 1987. These are the totals for the new Diamond Shamrock Refining and Marketing Co.

Assets—Peak Years vs. 1989

(In billions of dollars)

	Peak Year	Peak Year Total	% Chng. '89 vs. Peak	
Exxon	1989	\$83,219	\$83,219	0.0%
Mobil	1984	41,851	39,080	(7.1)
Chevron	1984	45,404	33,884	(34.0)
Amoco	1989	30,430	30,430	0.0
Shell	1989	27,599	27,599	0.0
Texaco	1984	37,774	25,636	(47.3)
BP-America	1987	22,807	20,438	(11.6)
Arco	1983	23,282	22,161	(5.1)
Phillips	1984	16,955	11,256	(50.1)
Conoco	1985	14,155	10,392	(35.8)

(In billions of dollars)

	Peak Year	Peak Year Total	% Chng. '89 vs. Peak	
Unocal	1985	\$10,797	\$9,257	(16.6%)
Marathon	1986	11,022	9,246	(19.2)
Sun	1985	12,296	8,699	(48.6)
Coastal	1989	8,773	8,773	0.0
Amerada Hess	1989	6,867	6,867	0.0
Pennzoil	1989	4,882	4,882	0.0
Ashland (*)	1989	4,456	4,456	0.0
Kerr-McGee	1983	3,806	3,332	(14.2)
American Petrofina	1989	2,505	2,505	0.0
Murphy	1982	2,990	2,750	(8.7)

(a) Not comparable. The old Cities Service Co. was a different company entirely.
* Fiscal year ending 9/30/89.

Citgo 1981 6,049 1,587 (a)
Diamond Shamrock 1989 1,027 1,027 0.0

Oil Company 1989 Annual Reports

Financial

	Gross Sales-Operating Revenues			Net Income			Net Income % of Gross Sales	
	(add 000)			(add 000)				
	1989	1988	% Change	1989	1988	% Change	1989	1988
Amerada Hess Corp.	\$5,679,327	\$4,263,544	33.2%	\$476,349	\$124,217	28.4%		
American Petrofina	3,036,386	2,634,706	15.2	119,143	132,900	(10.4)	3.9	5.0
Amoco Corp.	23,966,000	21,150,000	13.3	1,610,000	2,063,000	(22.0)	6.7	9.7
Ashland Oil, Inc.	7,990,000	7,753,000	3.1	86,205	223,944	(61.5)	1.1	2.9
Atlantic Richfield Co.	15,351,000	17,626,000	(12.9)	1,953,000	1,583,000	23.4	12.7	9.0
BP America	17,668,000	15,411,000	14.6	2,041,000	1,673,000	22.0	14.2	10.9
Chevron Corp.	29,443,000	25,196,000	16.9	251,000	1,768,000	(85.8)	0.9	7.0
Citgo Petroleum Corp.	4,941,185	4,109,679	20.2	163,013	165,635	(1.6)	3.3	4.0
Coastal Corp.	8,271,000	7,674,000	10.1	170,100	157,400	8.1	2.1	2.1
Conoco, Inc.	12,314,000	10,995,000	12.0	538,000	391,000	37.6	4.4	3.6
Diamond Shamrock Corp.	2,090,865	1,803,892	15.9	28,051	53,514	(47.6)	1.3	3.0
Exxon Corp.	96,300,000	88,600,000	8.7	3,510,000	5,260,000	(33.3)	3.6	5.9
Getty Petroleum Corp.*	1,183,744	1,040,755	13.7	22,987	28,418	(19.1)	1.9	2.7
Marathon Oil Corp.	12,264,000	9,900,000	23.9	987,000	475,000	107.8	8.0	4.8
Mobil Oil Corp.	56,188,000	54,361,000	3.4	1,809,000	2,087,000	(13.3)	3.2	3.8
Murphy Oil Corp.	1,852,598	1,473,598	26.4	46,551	38,752	20.1	2.7**	1.8**
Phillips Petroleum Corp.	12,384,000	11,304,000	9.6	219,000	650,000	(66.3)	1.8	5.8
Shell Oil Corp.	21,948,000	21,399,000	2.5	1,405,000	1,239,000	13.4	6.4	5.8
Sun Co., Inc.	11,168,000	9,744,000	14.6	98,000	7,000	769.2	0.9	0.1
Texaco Inc.	35,656,000	35,138,000	1.5	2,413,000	1,304,000	85.0	6.8	3.7
Unocal Corp.	10,056,000	8,910,000	12.9	260,000	480,000	(45.8)	2.6	5.4

*Fiscal year is Jan. 31, 1989-Jan. 1, 1990

**Income before minority interest as a percent of gross sales

Operating

	Net Crude Production b/d				Refinery Crude Runs b/d				Domestic Refined Product Sales b/d	
	Domestic		Foreign		Domestic		Foreign			
	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988
Amerada Hess Corp.	60,992	60,782	79,250	72,630	397,000	296,000	—	—	470,000	379,000
American Petrofina	22,378	17,318	—	—	57,158	72,517	92,583	80,205	234,406	220,484
Amoco Corp.	390,000	409,000	425,000	400,000	896,000	882,000	54,000	62,000	1,001,000	953,000
Ashland Oil, Inc.	2,084	2,366	33,540	30,922	125,304	147,579	178,915	173,090	304,219	320,869
Atlantic Richfield Co.	680,000	674,200	70,100	63,600	413,100	397,800	—	—	435,500	418,800
BP America	784,400	857,500	4,300	4,200	717,000	629,000	—	—	898,100	811,700
Chevron Corp.	482,000	484,000	487,000	486,000	1,403,000	1,407,000	490,000	500,000	1,469,000	1,451,000
Citgo Petroleum Corp.	—	—	—	—	71,640	68,111	209,981	197,042	517,000	493,000
Coastal Corp.	9,385	10,240	—	—	238,000	266,000	—	—	766,800	742,200
Conoco, Inc.	112,000	105,000	285,000	302,000	373,000	164,000	381,000	219,000	451,000	502,000
Diamond Shamrock Corp.	—	—	—	—	129,990	133,603	28,546	22,689	179,661	175,523
Exxon Corp.	693,000	760,000	1,008,000	1,046,000	999,000	968,000	2,300,000	2,074,000	1,147,000	1,113,000
Getty Petroleum Corp.*	—	—	—	—	—	—	—	—	—	—
Marathon Oil Corp.	143,100	154,100	65,100	69,500	504,000	469,800	—	—	665,500	559,100
Mobil Oil Corp.	315,000	329,000	399,000	361,000	772,000	650,000	1,035,000	1,003,000	939,000	927,000
Murphy Oil Corp.	14,902	15,554	29,150	32,150	96,687	92,704	25,594	23,711	103,671	98,886
Phillips Petroleum Corp.	254,000	284,000	128,000	124,000	465,000	501,000	—	—	535,000	540,000
Shell Oil Corp.	427,000	463,000	81,000	68,000	990,000	999,000	—	—	1,207,000	1,314,000
Sun Co., Inc.	—	104,300	59,600	51,900	561,200	472,000	68,900	61,000	655,100	596,700
Texaco Inc.	480,000	524,000	353,000	466,000	619,200	907,000	737,000	970,000	809,000	1,026,000
Unocal Corp.	161,000	166,000	92,000	91,000	352,000	408,000	—	—	523,000	520,000

Quarterly and Full-Year Earnings— 1989 vs. 1988

(Add 000,000)

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Full Year 1989	Full Year 1988	% Change
Exxon	\$1,270.0	\$160.0	\$1,110.0	\$485.0	\$3,510.0	\$5,260.0	(33.3%)
Mobil	429.0	401.0	532.0	447.0	1,809.0	2,087.0	(13.3)
Chevron	313.0	404.0	417.0	(883.0)	251.0	1,768.0	(85.8)
Amoco	458.0	497.0	336.0	319.0	1,610.0	2,063.0	(22.0)
Shell	362.0	440.0	340.0	264.0	1,405.0	1,239.0	13.4
Texaco	1,455.0	366.0	305.0	287.0	2,413.0	1,304	85.0
BP-America	NA	631.0	NA	NA	NA	NA	NA
Arco	704.0	467.0	379.0	403.0	1,953.0	1,583.0	23.4
Phillips	190.0	197.0	87.0	(225.0)	(219.0)	650.0	—
Conoco	217.0	115.0	98.0	108.0	538.0	391.0	37.6
Unocal	87.0	120.0	79.0	(26.0)	260.0	480.0	(45.8)
Marathon*	241.0	257.0	198.0	166.0	862.0	506.0	70.1
Sun	81.0	105.0	85.0	(173.0)	98.0	7.0	1,300.0
Coastal	NA	35.3	3.0	71.4	NA	157.4	NA
Amerada Hess	220.2	133.5	51.8	70.8	476.3	124.3	283.2
Pennzoil	52.5	118.0	35.4	(60.0)	146.0	1,475.4	(90.1)
Ashland**	13.8	43.5	(39.4)	22.0	—	—	—
Kerr-McGee	63.9	34.7	20.1	37.2	156.0	110.0	41.8
American Petrofina	48.8	41.8	15.1	13.5	119.0	132.9	(10.4)
Murphy	6.4	16.8	2.5	21.0	46.6	38.8	20.1
Citgo	36.6	39.2	28.6	NA	NA	NA	NA
Diamond Shamrock	NA	—	—	(23.8)	28.1	53.5	(47.5)

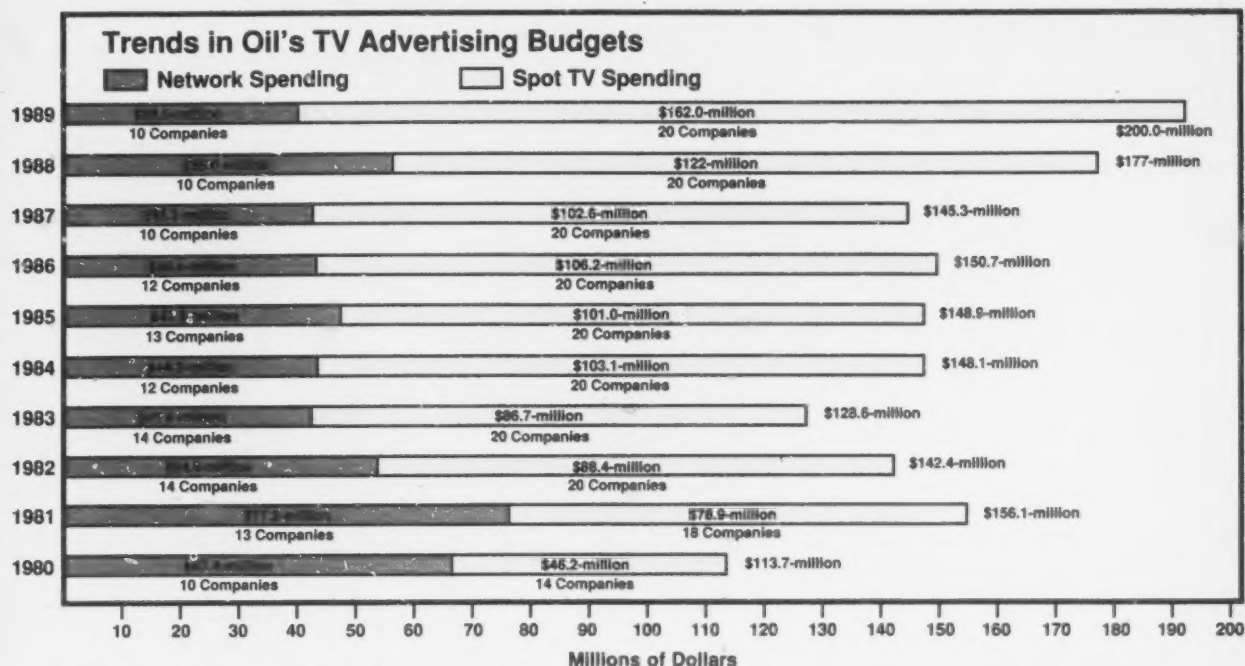
*Operating profits after taxes

**Fiscal year ends 9/30/89

Downstream Earnings in 1989 Reflect Environmental, Related Costs

(Add 000,000)

	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Full Year 1989	Full Year 1988	% Change
Exxon	\$147.0	\$232.0	\$357.0	\$341.0	\$1,098.0	\$1,812.0	(39)
domestic	40.0	99.0	128.0	114.0	370.0	672.0	(45)
foreign	107.0	133.0	229.0	227.0	729.0	1,140.0	(36)
Mobil	125.0	100.0	383.0	123.0	731.0	1,006.0	(27)
domestic	76.0	111.0	88.0	72.0	347.0	553.0	(37)
foreign	49.0	(11.0)	295.0	51.0	384.0	453.0	(15)
Chevron	50.0	166.0	189.0	(271.0)	134.0	622.0	(79)
domestic	7.0	103.0	130.0	(322.0)	(82.0)	571.0	—
foreign	43.0	63.0	59.0	51.0	216.0	51.0	324.0
Texaco	126.0	208.0	180.0	(42.0)	471.0	1,134.0	(59)
domestic	34.0	80.0	76.0	(111.0)	78.0	663.0	(88)
foreign	32.0	128.0	104.0	69.0	393.0	471.0	(17)
Amoco (worldwide)	114.0	213.0	134.0	187.0	648.0	897.0	(28)
Shell	113.0	132.0	106.0	10.0	361.0	519.0	(27)
BP-America	—	188.0	NA	NA	NA	NA	NA
Arco	742.0	91.0	119.0	64.0	291.0	368.0	(21)
Phillips	51.0	62.0	48.0	15.0	176.0	312.0	(43)
Conoco	71.0	—	78.0	62.0	303.0	331.0	(9)
Sun	67.0	72.0	73.0	7.0	212.0	227.0	(65)
Marathon*	66.0	169.0	112.0	58.0	405.0	488.0	(17)



Source: Television Bureau of Advertising and NPN Factbook 1981-1989.

Network TV Spending

Company	(Add 000)		% Chng.	Company	(Add 000)		% Chng.
	1989	1988			1989	1988	
Ashland	\$ 8,892	\$ 6,796	28	Amoco	\$ 981	—	—
Burmah (Castrol)	8,423	7,095	19	Unocal	775	1,568	(51)
Pennzoil	6,489	9,364	(31)	Shell	155	—	—
Quaker State	4,614	9,429	(51)	Chevron*	75	93	(19)
Mobil	2,641	3,720	(29)	Sun	68	—	—
British Petroleum*	2,128	45	4,629	Atlantic Richfield	36	—	—
Texaco	1,498	15,561	(90)	Exxon	25	65	(62)
Phillips	1,395	1,397	—	Totals	\$37,995	\$51,133	(26)

*1988 data adjusted to reflect mergers, acquisitions and divestitures in 1988.

Spot TV Spending

Texaco	\$23,428	\$11,471	104	Citgo	4,536	2,378	91
Exxon	16,776	18,585	(10)	Pennzoil	4,017	2,525	59
Chevron*	16,744	13,925	20	Atlantic Richfield	3,501	1,182	196
Shell	16,317	5,922	176	Conoco	2,733	2,962	(8)
Amoco	14,672	12,489	17	Phillips	2,056	5,051	(59)
Mobil	13,587	10,718	27	Amerada Hess	1,450	1,176	23
Unocal	10,040	8,830	14	American Petrofina	1,290	1,462	(12)
British Petroleum*	8,664	5,704	52	Marathon	1,205	1,050	15
Sun	7,084	5,713	24	Witco (Kendall)	929	649	43
Ashland	6,611	4,636	43	Totals	\$161,982	\$122,325	32
Burmah (Castrol)	6,342	5,897	8				

*1988 data adjusted to reflect mergers, acquisitions and divestitures in 1989.
Source: Television Bureau of Advertising, New York, from Arbitron Data.

Spot TV Spending Rises, Network Slumps

Oil company spending on television advertising—commercials, sponsored programs and entertainment alike—skyrocketed to \$200-million in 1989, an upward leap of more than \$27-million over the adjusted figures for the preceding year.

In the process, network TV spending declined 25.7% for the top 15 spenders while spot TV spending rose 32% for the top 20 oil company advertisers. It is difficult to make one-on-one comparisons because the roster of advertisers changes almost annually. The last decline, however, was in 1983 when oil companies collectively spent \$128.6-million. Prior to that time, network

and spot TV shared the advertising dollars almost 50-50. Since 1983, however, spot TV has commanded two to three times as many dollars as network TV and the gap is widening.

The Television Bureau of Advertising, which monitors the spending programs of oil and other industries, generally defines the network TV market as that of the three big networks—ABC, CBS, and NBC; and spot TV as primarily regional commercials and programs.

Television generally gets about three out of every four dollars spent by the oil companies on TV and radio commercials and the print media like newspapers and magazines.

Current Automotive Registrations

State	Automobiles			Trucks and Buses			All Motor Vehicles			Motorcycles
	Registered 1988	Estimated 1989	% Chng.	Registered 1988	Estimated 1989	% Chng.	Registered 1988	Estimated 1989	% Chng.	Estimated 1989
ALABAMA	2,919,814	3,065,000	5.0	961,187	1,010,000	5.1	3,880,981	4,075,000	5.0	48,000
ALASKA	229,279	233,000	1.6	132,604	134,000	1.1	361,883	367,000	1.4	8,000
ARIZONA	1,927,503	1,993,000	3.4	777,369	792,000	1.9	2,704,872	2,785,000	3.0	81,000
ARKANSAS	844,810	835,000	-1.2	582,240	601,000	3.2	1,427,050	1,436,000	0.6	14,000
CALIFORNIA	16,496,522	16,799,000	1.8	4,840,442	4,858,000	0.4	21,336,964	21,657,000	1.5	628,000
COLORADO	2,121,998	2,132,000	0.5	801,473	800,000	-0.2	2,932,471	2,932,000	0.3	102,000
CONNECTICUT	2,490,237	2,535,000	1.8	161,690	160,000	-1.0	2,651,927	2,695,000	1.6	54,000
DELAWARE	397,286	407,000	2.4	114,654	122,000	6.4	511,940	529,000	3.3	9,000
DIST. OF COL.	247,136	252,000	2.0	16,887	16,000	-5.3	264,023	268,000	1.5	2,000
FLORIDA	8,713,198	9,014,000	3.5	2,270,456	2,364,000	4.1	10,983,654	11,378,000	3.6	184,000
GEORGIA	3,690,981	3,802,000	3.0	1,505,239	1,583,000	5.2	5,196,220	5,385,000	3.6	75,000
HAWAII	613,750	626,000	2.0	90,961	93,000	2.2	704,711	719,000	2.0	17,000
IDAHO	594,228	609,000	2.5	345,950	344,000	-0.6	940,178	953,000	1.4	43,000
ILLINOIS	6,403,462	6,579,000	2.7	1,461,473	1,512,000	3.5	7,864,935	8,091,000	2.9	245,000
INDIANA	3,069,935	3,115,000	1.5	1,099,311	1,150,000	4.6	4,169,246	4,265,000	2.3	104,000
IOWA	1,817,383	1,848,000	1.7	750,363	765,000	2.0	2,567,746	2,613,000	1.8	179,000
KANSAS	1,523,226	1,543,000	1.3	686,687	694,000	1.1	2,209,913	2,237,000	1.2	74,000
KENTUCKY	1,861,754	1,887,000	1.4	933,323	954,000	2.2	2,795,077	2,841,000	1.6	33,000
LOUISIANA	1,970,360	1,986,000	0.8	967,189	998,000	3.2	2,937,549	2,984,000	1.6	34,000
MAINE	709,075	770,000	8.6	232,198	218,000	-6.1	941,273	988,000	5.0	39,000
MARYLAND	2,857,979	2,908,000	1.8	610,268	631,000	3.4	3,468,247	3,539,000	2.0	60,000
MASSACHUSETTS ..	3,322,044	3,292,000	-0.9	496,268	499,000	0.6	3,818,312	3,791,000	-0.7	58,000
MICHIGAN	5,556,109	5,637,000	1.5	1,585,382	1,656,000	4.5	7,141,491	7,293,000	2.1	200,000
MINNESOTA	2,503,362	2,553,000	2.0	706,995	714,000	1.0	3,210,357	3,267,000	1.8	117,000
MISSISSIPPI	1,362,686	1,377,000	1.1	424,173	434,000	2.3	1,786,859	1,811,000	1.4	25,000
MISSOURI	2,707,929	2,753,000	1.7	1,086,513	1,120,000	3.1	3,794,442	3,873,000	2.1	60,000
MONTANA	430,072	438,000	1.8	292,482	295,000	0.9	722,554	733,000	1.4	26,000
NEBRASKA	877,894	886,000	0.9	450,338	454,000	0.8	1,328,232	1,340,000	0.9	27,000
NEVADA	574,212	589,000	2.6	234,091	246,000	5.1	808,303	835,000	3.3	19,000
NEW HAMPSHIRE ..	733,529	774,000	5.5	194,585	202,000	3.8	928,114	976,000	5.2	39,000
NEW JERSEY	5,222,761	5,384,000	3.1	515,091	510,000	-1.0	5,737,852	5,894,000	2.7	97,000
NEW MEXICO	788,415	773,000	-2.0	478,145	474,000	-0.9	1,266,560	1,247,000	-1.5	34,000
NEW YORK	8,558,985	8,861,000	3.5	1,278,623	1,323,000	3.5	9,837,608	10,184,000	3.5	208,000
NORTH CAROLINA ..	3,597,092	3,698,000	2.8	1,425,536	1,503,000	5.4	5,022,628	5,201,000	3.6	56,000
NORTH DAKOTA	385,028	388,000	0.8	270,056	274,000	1.5	655,084	662,000	1.1	23,000
OHIO	7,003,826	7,129,000	1.8	1,608,192	1,691,000	5.1	8,612,018	8,820,000	2.4	244,000
OKLAHOMA	1,666,947	1,682,000	0.9	887,071	899,000	1.3	2,554,016	2,581,000	1.1	62,000
OREGON	1,749,239	1,815,000	3.8	566,452	552,000	-2.6	2,315,691	2,367,000	2.2	70,000
PENNSYLVANIA	6,253,550	6,354,000	1.6	1,512,479	1,568,000	3.7	7,766,029	7,922,000	2.0	177,000
RHODE ISLAND	555,313	566,000	1.9	115,500	121,000	4.8	670,813	687,000	2.4	23,000
SOUTH CAROLINA ..	1,799,425	1,849,000	2.8	614,487	625,000	1.7	2,413,912	2,474,000	2.5	28,000
SOUTH DAKOTA	413,668	420,000	1.5	278,964	287,000	2.9	692,632	707,000	2.1	30,000
TENNESSEE	3,373,276	3,509,000	4.0	852,214	873,000	2.4	4,225,490	4,382,000	3.7	53,000
TEXAS	8,455,744	8,523,000	0.8	3,950,469	4,042,000	2.3	12,406,213	12,565,000	1.3	197,000
UTAH	786,942	807,000	2.5	372,493	381,000	2.3	1,159,435	1,188,000	2.5	27,000
VERMONT	334,428	347,000	3.8	118,418	126,000	6.4	452,846	473,000	4.5	18,000
VIRGINIA	3,625,109	3,637,000	0.3	1,045,228	1,092,000	4.5	4,670,337	4,729,000	1.3	61,000
WASHINGTON	2,753,299	2,883,000	4.7	1,134,015	1,192,000	5.1	3,887,314	4,075,000	4.8	130,000
WEST VIRGINIA	906,488	932,000	2.8	380,146	389,000	2.3	1,286,634	1,321,000	2.7	17,000
WISCONSIN	3,169,217	3,290,000	3.8	731,889	753,000	2.9	3,901,106	4,043,000	3.6	197,000
WYOMING	285,190	291,000	2.0	196,798	200,000	1.6	481,988	491,000	1.9	20,000
TOTAL	141,251,695	144,375,000	2.2	43,145,037	44,294,000	2.7	184,395,732	188,669,000	2.3	4,376,000

Source: Federal Highway Administration, Table SS88-3, Selected Highway Statistics, published October 1989.

Estimated Licensed Drivers, by Sex and States, 1988 and 1989

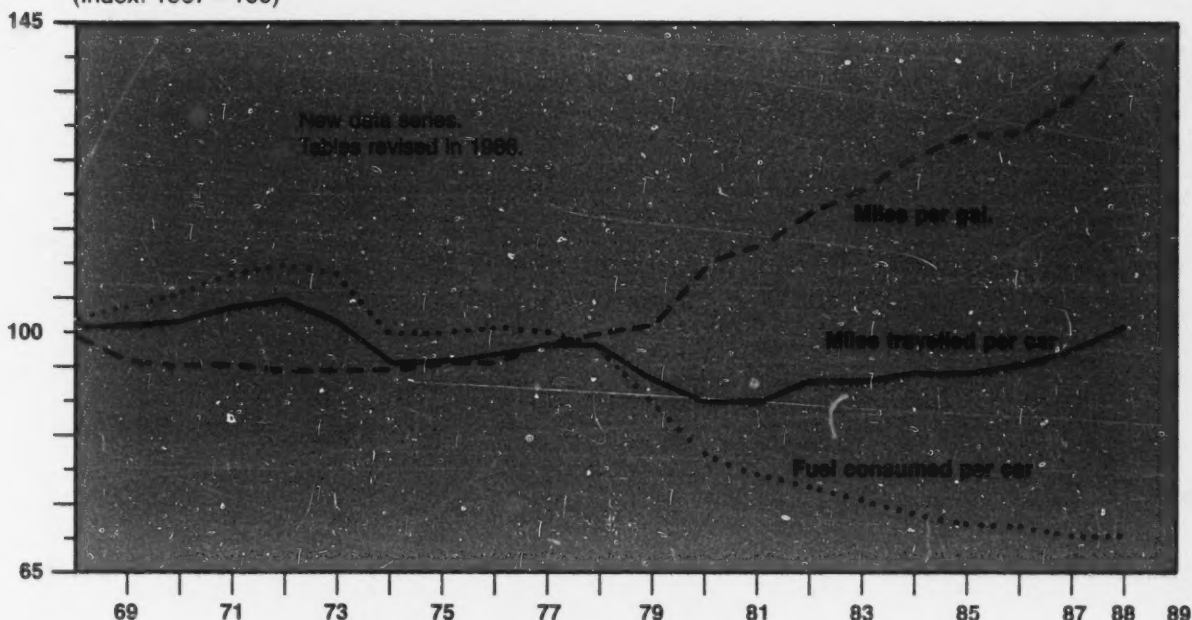
(Add 000)

State	1988 (Actual)			% Male Drivers	1989 (Estimated)			% Change Total Drivers	
	Male	Female	Total		Male	Female	Total	1989 vs 1988	1988 vs 1978
Alabama.....	1,072,334	1,025,262	2,097,596	51.12	1,081	1,033	2,114	0.8	-2.9
Alaska.....	164,852	135,148	300,000	54.95	166	136	302	0.7	35.9
Arizona.....	1,206,413	1,145,490	2,351,903	51.30	1,232	1,169	2,401	2.1	45.8
Arkansas.....	863,564	813,299	1,676,863	51.50	873	822	1,695	1.1	22.7
California.....	10,004,485	8,921,488	18,925,973	52.86	10,204	9,099	19,303	2.0	26.0
Colorado.....	1,189,727	1,036,558	2,226,285	53.44	1,199	1,045	2,244	0.8	11.5
Connecticut.....	1,211,801	1,158,165	2,369,966	51.13	1,223	1,168	2,391	0.9	15.0
Delaware.....	233,515	235,329	468,844	49.81	237	238	475	1.3	16.4
Dist. of Col.	214,586	177,189	391,775	54.77	216	178	394	0.6	12.2
Florida.....	4,674,721	4,115,122	8,789,843	53.18	4,782	4,210	8,992	2.3	28.0
Georgia.....	2,202,834	2,132,703	4,335,537	50.81	2,269	2,197	4,466	3.0	34.9
Hawaii.....	344,326	290,554	634,880	54.23	348	294	642	1.1	18.9
Idaho.....	366,485	341,076	707,561	51.80	372	346	718	1.5	20.4
Illinois.....	3,703,709	3,558,799	7,262,508	51.00	3,741	3,594	7,335	1.0	6.0
Indiana.....	1,944,153	1,828,855	3,773,008	51.53	1,955	1,839	3,794	0.6	6.9
Iowa.....	914,567	972,383	1,886,950	48.47	928	987	1,915	1.5	-6.7
Kansas.....	848,024	857,845	1,705,869	49.71	862	871	1,733	1.6	-4.1
Kentucky.....	1,223,007	1,144,567	2,367,574	51.66	1,239	1,159	2,398	1.3	16.2
Louisiana.....	1,315,396	1,282,569	2,597,965	50.63	1,319	1,287	2,606	0.3	15.0
Maine.....	433,662	433,066	866,728	50.03	440	439	879	1.4	26.8
Maryland.....	1,602,502	1,534,317	3,136,819	51.09	1,636	1,567	3,203	2.1	23.0
Massachusetts.....	2,198,205	2,051,609	4,249,814	51.72	2,242	2,092	4,334	2.0	14.0
Michigan.....	3,209,975	3,178,543	6,388,518	50.25	3,216	3,185	6,401	0.2	2.2
Minnesota.....	1,274,764	1,204,161	2,478,925	51.42	1,280	1,209	2,489	0.4	10.9
Mississippi.....	925,597	887,962	1,813,559	51.04	942	903	1,845	1.7	14.2
Missouri.....	1,776,678	1,734,998	3,511,676	50.59	1,796	1,754	3,550	1.1	11.0
Montana.....	292,988	241,469	534,457	54.82	294	242	536	0.3	-7.9
Nebraska.....	550,328	537,776	1,088,104	50.58	558	546	1,104	1.5	2.6
Nevada.....	391,404	357,633	749,037	52.25	400	366	766	2.3	42.1
New Hampshire.....	405,204	393,132	798,336	50.76	412	399	811	1.6	30.1
New Jersey.....	2,868,885	2,582,671	5,451,556	52.63	2,906	2,616	5,522	1.3	21.2
New Mexico.....	544,576	502,685	1,047,261	52.00	550	508	1,058	1.0	30.4
New York.....	5,433,591	4,709,873	10,143,464	53.57	5,493	4,762	10,255	1.1	11.1
North Carolina.....	2,231,228	2,190,706	4,421,934	50.46	2,276	2,234	4,510	2.0	22.9
North Dakota.....	220,072	211,294	431,366	51.02	220	212	432	0.1	7.0
Ohio.....	3,760,864	3,617,873	7,378,737	50.97	3,768	3,625	7,393	0.2	-9.8
Oklahoma.....	1,110,244	1,109,052	2,219,296	50.03	1,128	1,126	2,254	1.6	18.4
Oregon.....	1,137,303	1,032,821	2,170,124	52.41	1,151	1,045	2,196	1.2	18.8
Pennsylvania.....	4,029,223	3,702,657	7,731,880	52.11	4,054	3,725	7,779	0.6	9.4
Rhode Island.....	336,501	329,747	666,248	50.51	345	339	684	2.7	14.8
South Carolina.....	1,161,402	1,144,131	2,305,533	50.37	1,183	1,166	2,349	1.9	27.1
South Dakota.....	244,445	238,130	482,575	50.65	245	238	483	0.1	2.7
Tennessee.....	1,587,611	1,611,367	3,198,978	49.63	1,608	1,633	3,241	1.3	18.7
Texas.....	5,739,889	5,340,813	11,080,702	51.80	5,757	5,357	11,114	0.3	29.3
Utah.....	490,277	487,359	977,636	50.15	496	494	990	1.3	26.5
Vermont.....	210,614	195,580	406,194	51.85	213	198	411	1.2	23.8
Virginia.....	2,089,470	2,040,040	4,129,510	50.60	2,127	2,077	4,204	1.8	26.7
Washington.....	1,637,237	1,560,786	3,198,023	51.20	1,660	1,583	3,243	1.4	28.7
West Virginia.....	691,604	616,608	1,308,212	52.87	694	619	1,313	0.4	-8.1
Wisconsin.....	1,680,715	1,587,492	3,268,207	51.43	1,691	1,597	3,288	0.6	12.7
Wyoming.....	183,872	165,074	348,946	52.69	188	169	357	2.3	9.4
Total	84,149,429	78,703,826	162,853,255	51.67	85,215	79,697	164,912	1.3	15.6
Percent Change From Prior Year	0.6	1.53	1.07	-	-	-	-	-	-

Source: Federal Highway Administration, Table SS87-5, Selected Highway Statistics, published October 1988

Passenger Car Efficiency Index

(Index: 1967 = 100)



Passenger Car Energy Indicators—1967-1988 (a)

(1967 = 100)

Year	Passenger Cars Only						Passenger Cars and Motorcycles		
	Avg. Fuel Used per Car		Avg. Miles Traveled per Car		Avg. Miles per gal. of Fuel		Number Registered (000)	Gasoline Consumed (000,000 gal.)	Miles Traveled (000,000)
	Gal.	Index	Miles	Index	Miles	Index			
1988	507	70.9	10,119	100.6	19.95	141.8	145,836	71,854	1,439,319
1987	514	71.9	9,878	98.2	19.20	136.5	142,125	70,763	1,364,836
1986	526	73.6	9,608	95.5	18.27	129.9	140,693	71,403	1,310,921
1985	525	73.4	9,560	95.0	18.20	129.4	137,308	69,450	1,269,651
1984	536	75.0	9,558	95.0	17.83	126.7	134,334	73,283	1,274,074
1983	553	77.3	9,475	94.2	17.14	121.8	131,723	73,156	1,229,697
1982	566	79.2	9,428	93.7	16.65	118.3	129,500	72,848	1,191,623
1981	576	80.6	9,186	91.3	15.94	113.3	129,123	71,718	1,124,843
1980	591	82.7	9,141	90.9	15.46	109.9	127,448	73,375	1,129,887
1979	653	91.3	9,403	93.5	14.41	102.4	125,750	80,233	1,162,528
1978	701	98.0	9,835	97.8	14.04	99.8	121,717	83,775	1,194,287
1977	716	100.1	9,879	98.2	13.80	98.1	118,711	80,677	1,141,166
1976	723	101.1	9,785	97.3	13.53	96.2	115,170	78,847	1,098,147
1975	716	100.1	9,690	96.3	13.52	96.1	111,679	76,457	1,050,472
1970	760	106.3	10,272	102.1	13.52	96.1	92,095	65,784	900,992
1967	715	100.0	10,060	100.0	14.07	100.0	82,367	55,110	774,203

(a) Data for this table were revised by The Federal Highway Administration in 1986 and this automatically replaces all prior data.

Mileage and Fuel Consumption Data—1988

Personal Vehicles

	Passenger Cars	Motorcycles	All Personal Passenger Vehicles	Buses	All Passenger Vehicles	Trucks and Combinations	All Motor Vehicles
Fuel consumed (million gal.)	71,654	200	71,855	920	72,775	57,111	129,886
Average per vehicle (gal.)	507	44	493	1,494	497	1,343	687
Average miles per gal.	19.85	50	20.03	594	19.85	10.17	15.60
Vehicles registered (thousands)	141,251	4,584	145,836	602	146,452	42,529	188,981
Average miles traveled	10,119	2,186	9,869	8,877	9,865	13,656	10,718
Average miles traveled (millions):							
Main rural roads	—	—	321,011	1,401	322,412	170,908	493,320
Local rural roads	—	—	206,068	1,700	207,768	116,469	324,237
Urban streets	—	—	912,240	2,364	914,604	293,425	1,208,029
Total travel in 1988	1,429,297	10,022	1,439,319	5,465	1,444,385	580,802	2,025,586
Total travel in 1987	1,355,350	9,506	1,364,836	5,318	1,370,154	551,050	1,921,204

Source: Federal Highway Administration, Table VM-1, published October 1988; all 1988 data are preliminary.

1988 Relationships by Population and Drivers

State	Resident Population (1,000)	Licensed Drivers per 1,000 Resident Population	Registered Motor Vehicles per 1,000 Resident Population	Gal. of Fuel per Vehicle	Miles per Gallon	Annual Miles per Vehicle	Vehicle Miles per Licensed Driver
Alabama	4,102	511	948	635	16.10	10,225	18,919
Alaska	524	573	691	699	15.17	10,614	12,803
Arizona	3,489	674	775	728	17.39	12,661	14,561
Arkansas	2,395	700	596	1,122	12.01	13,468	11,461
California	28,314	668	754	672	16.85	11,322	12,764
Colorado	3,301	674	866	581	16.29	9,463	12,427
Connecticut	3,233	733	820	591	16.63	9,828	10,997
Delaware	660	710	776	763	16.41	12,509	13,659
Dist. of Col.	617	635	428	771	16.72	12,897	8,691
Florida	12,335	713	890	595	16.13	9,589	11,982
Georgia	6,342	684	819	823	14.56	11,982	14,361
Hawaii	1,098	578	642	528	19.95	10,528	11,686
Idaho	1,003	705	937	572	15.12	8,644	11,486
Illinois	11,614	625	677	710	14.05	9,979	10,807
Indiana	5,556	679	750	787	15.57	12,262	13,550
Iowa	2,834	666	906	634	13.46	8,532	11,610
Kansas	2,495	684	886	704	13.59	9,575	12,405
Kentucky	3,727	635	750	830	13.63	11,311	13,353
Louisiana	4,408	589	666	798	14.79	11,806	13,350
Maine	1,205	719	781	786	15.41	12,112	13,154
Maryland	4,622	679	750	676	16.00	10,812	11,954
Massachusetts	5,889	722	648	718	15.80	11,349	10,197
Michigan	9,240	691	773	662	16.47	10,908	12,194
Minnesota	4,307	576	745	710	15.99	11,353	14,703
Mississippi	2,620	692	682	850	14.51	12,336	12,155
Missouri	5,141	683	738	848	14.16	12,010	12,977
Montana	805	664	898	733	15.37	11,263	15,277
Nebraska	1,602	679	829	705	14.32	10,094	12,321
Nevada	1,054	711	767	866	12.84	11,121	12,001
New Hampshire	1,085	736	855	614	16.68	10,243	11,909
New Jersey	7,721	706	743	674	15.17	10,225	10,762
New Mexico	1,507	695	840	792	15.24	12,067	14,593
New York	17,909	566	549	629	16.75	10,540	10,223
North Carolina	6,489	681	774	768	15.01	11,536	13,104
North Dakota	667	647	982	630	13.97	8,800	13,365
Ohio	10,855	680	793	653	14.58	9,520	11,112
Oklahoma	3,242	685	788	770	16.46	12,681	14,594
Oregon	2,767	784	837	701	15.53	10,884	11,614
Pennsylvania	12,001	644	647	712	14.70	10,461	10,507
Rhode Island	993	671	676	633	13.79	8,725	8,785
South Carolina	3,470	664	696	753	17.48	13,157	13,775
South Dakota	713	677	971	654	14.63	9,578	13,747
Tennessee	4,895	654	863	716	14.62	10,459	13,815
Texas	16,841	658	737	792	15.92	12,611	14,120
Utah	1,690	578	686	778	14.71	11,439	13,566
Vermont	557	729	813	716	17.12	12,262	13,671
Virginia	6,015	687	776	751	16.37	12,302	13,913
Washington	4,648	688	836	625	17.20	10,756	13,075
West Virginia	1,876	697	686	775	13.93	10,791	10,613
Wisconsin	4,855	673	804	625	17.43	10,884	12,991
Wyoming	479	728	1,006	921	12.75	11,739	16,215
Total	245,807	663	750	704	15.60	10,985	12,438

Source: Federal Highway Administration, Table SS28-18, Selected Highway Statistics, published October 1989.

Gasoline	Motor Oil	Gasoline	Motor Oil	Gasoline	Motor Oil
Ada Resources Phillips (r,ur,up) Conoco (r,ur,up)	Phillips Trop Artic Phillips Super HD Conoco High Performance Heavy Duty Conoco Fleet Unocal Guardol Unocal Super	Bray Terminals, Inc. Citgo (r,ur,p,up,sp,usp,o)	Chevron Citgo Castrol	Clark Oil & Refining Corp. Regular Leaded Regular Unleaded Super Unleaded	Clark H.D. Clark Premium 5W-30 Clark Premium 10W-40 Clark Premium 10W-30
Agway Petroleum Corp. Agway (r,ur,up,usp,d,pd) Power Champ (r,ur,up)	Agway Agway Super Diesel Agway Diesel Agway Super Premium Agway Premium	Brennan Petroleum Co. Mobil (r,ur,up)	Mobil	The Coastal Corporation Coastal (r,ur,p,up,sp,usp,o)	Uni-Lube
American Petrofina, Inc. Fina (r,ur,usp)	Fina Ultra Supreme Fina KAPPA XHD Universal Plus Fina Universal Plus	Browning Oil Co. Shell (r,ur,p,up) Rally (r,ur,up)	Shell	Coen Oil Co. Amoco Union Mobil Citgo Pennzoil	Amoco Union Mobil Citgo Pennzoil Quaker State Valvoline
Amoco Corp. Amoco (r,ur,w/Ethanol, u Silver, u Ultimate)	Amoco-Amolube Amoco 200 Amoco 300 Amoco 400 Amoco 21C Amoco Turbo Amoco LDO Amoco Ultimate	Buhrmaster Energy Group Atlantic (r,ur,up) Hess (r,ur,up)	Magnum Atlantic Wolf's Head	Colonial Oil Industries, Inc. Enmark (ur,up,usp)	Enmark
Anchor Gasoline Corp. Canal (r,ur,up) Bayou (r,ur,up)	Sun	Dennis K. Burke Inc.	Fleetline Citgo Texaco Shell Castrol Chevron	Como Oil Co. Phillips 66 (r,ur,p,up)	Phillips Shell
Arco Products Company Arco (r,ur,usp)	Arco Arco Fleet S3 Plus Arco Supreme Arco Graphite III	C.S.C. Oil Co. CSC (r,ur,up)		Conoco Inc. Conoco (r,ur,up,usp)	Tracon Fleet Super HP Nailing HP Turbo HP Xtream
Arkansas Valley Petroleum Superclean (ur,up,usp) Sunoco (r,p,sp)		Campbell Oil Co. Shell (r,ur,p) Unocal Sunoco	Shell Unocal Sunoco	Consumers Gasoline Stations, Inc. Soot Consumers Mobil	Consumers Oil Texaco Mobil
Ashland Oil, Inc.	Valvoline	Cannon Oil Corp. Cannon (ur,up,usp, d)	Cannon 10W40 Cannon 10W50 Cannon HD Cannon Regular Cannon 50-1 Outboard	Convenient Petroleum Corp. Citgo (r,ur) Texaco (r,ur) Sunoco (r,ur)	Citgo Texaco Sunoco
Atlantic Refining and Marketing Corp. Atlantic (r,ur,up,usp)	Atlantic-Special Atlantic-Premium Atlantic-Super Premium	CENEX Cenex (r,ur,up,usp)	Golden D Super Lube 518 Super Lube XL CENEX Hi-Tech. CENEX TC-501	Crockett Oil Co. Conoco	Conoco Shell Texaco(Havoline) Phillips Pennzoil Sun Mobil
ARCO Arco (r,rec-1,u,usp)	ARCO ARCO S3 Plus ARCO Graphite III	Center Independent Oil Co. Citgo	Citgo Castrol Valvoline Quaker State Pennzoil Wolf's Head	Crown Central Petroleum Corp. Crown (r,ur,up,usp,d)	Crown All-Season HD Crown Premium HD Crown Quality Crown Universal ATF
Aztex Enterprises Citgo (ur,Advantage Performer)	Citgo	Certified Oil Co.	Certified Quaker State Valvoline Shell	Crystal Flash Petroleum Crystal Flash (ur,up,usp,o,d)	Citgo
Bagwell Oil Co., Inc. Unocal 76 Chevron BP	Unocal 76 Chevron BP	Champlain Oil Co. Citgo Texaco Gulf BP	Citgo Quaker State	Curtis Parker Oil Co., Inc. Conoco (ur,usp)	Fleet Super Tracon Far
Bedford Valley Petroleum Corp. Amoco (ur,up) Chevron (ur,up) Texaco (ur,up)	Amoco Chevron Quaker State Kendall Pennzoil Texaco	Chapman Inc. Texaco (r,ur,p,up,sp,usp)	Havoline URSA	K.E. David Ltd. Citgo (r,ur)	
Beneto, Inc. Exxon		Charter Marketing Co. Charter (r,ur,up)		DeBlois Oil Co. Texaco (ur,up,usp) Citgo (ur,up,usp) Sunoco (ur,up,usp)	Texaco Sunoco Citgo
BP America Inc. Sohio/Boron (ur,up,usp) Gulf (r,ur,up) BP (r,ur,up,usp)	BP All Season BP Premax BP Nitrex Super Premium Varelius-Commercial Vehicle	Chevron Corp. Chevron (r,ur,up,usp)	Chevron Special Chevron Custom Chevron ATF Special Chevron Daxron II (ATF) Chevron DELO 400 Plus Standard ATF Special	E.K. David Ltd. Citgo (r,ur)	
Bostick Brothers, Inc. Citgo (r,ur) Texaco (ur)	Conoco Texaco	Circle K Corp.		DeBlois Oil Co. Texaco (ur,up,usp) Citgo (ur,up,usp) Sunoco (ur,up,usp)	Texaco Sunoco Citgo
Bradley Petroleum Inc. Sinclair		CITGO Petroleum Corp. Citgo Reg. (r,ur) The Performer Premium (r,ur) Citgo Advantage Mid-grade (o)	Citgo Non-detergent Citgard™ 500 Citgard™ 600 Citgard™ Special Citgo Supergard™	KEY: Gasoline (r) Regular (ur) Unleaded regular (p) Premium (up) Unleaded premium (sp) Super premium (usp) Unleaded super premium (o) Other (d) Diesel	

Gasoline	Motor Oil	Gasoline	Motor Oil	Gasoline	Motor Oil
Diamond Shamrock Refining & Mfg. Co. Diamond Shamrock (r,up,usp,RG87)		Global Petroleum Corp. Mobil Sun Conoco Global King Coastal		Hunt Refining Co. Parade (r,ur,up)	
Dickey, Inc.		Godwin Oil Co. Texaco Phillips		Huntley Jiffy, Inc. Huntley-Jiffy Phillips Citgo	Huntley-Jiffy
Drakes Refining Stations Unino 76 (r,ur,up)		Golden Gate Petroleum Co. BP (r,up,d) Shell (r,up,d)		Jacobus Petroleum Products Inc./ Jiffy Stop, Inc. Citgo Unocal Phillips Marathon	Citgo Unocal Phillips Marathon Rotella Shell Texaco
East Coast Oil Corp. East Coast (r,ur,up)		Golub Corp. Gulf (ur,up)		Johnson Products, Inc. Citgo Getty Texaco	Getty Citgo Texaco
Emro Marketing Co. (ur,up,usp)		Gresham Petroleum Co. Amoco (r,ur,up,d) Chevron (ur,up)		Kellett Oil Co. Texaco (r,ur,p,up,sp,usp) Phillips 66 (r,ur,p,up,sp,usp,o) Sinclair (r,ur,p,up,sp,usp)	GRC Texaco
Englefield Oil Co. Gulf (r,ur) Marathon (r,ur) Mobil (r,ur)		Gulf Oil Gulf (r,ur,usp)		Kelley Williamson Co. Mobil (ur,up) Citgo (ur,up) Phillips (ur,up)	Citgo Mobil Kendall
Exxon Company, U.S.A. Exxon (r,ur) Exxon Plus (up) Exxon Supreme (usp)		Gull Industries Inc. Gulf (r,ur,up)		Kelso Oil Co., Inc. Pride (r,ur,up,usp)	Kendall Quaker State Havoline
Farm & Home Oil Co. Texaco (ur,up,usp,d) Amoco (ur,up,usp) Exxon (ur,up,usp)		Hawaiian Independent Refinery Inc. Gas Express Valvoline		Kent Distributors, Inc. Diamond Shamrock Phillips 66	Shamrock Phillips 66 Quaker State Penzol
Fas-Stop, Inc. APCO (r,ur)		Highway Oil, Inc. Regular unleaded Premium unleaded Diesel		Kerr-McGee Refining Corp. KM (r,ur,up,usp,o)	Valu Lube Heavy Duty Blue Max Blue Velvet
Fleetman Inc. Fuelman (r,ur,up,d)		Angus I. Hines Inc. Sentry (r,ur,up,d)		Kickapoo Oil Co., Inc. Kickapoo (r,ur,p,up,d)	Kickapoo Penzol
F.O. Fletcher Oil, Inc. Veltex (r,ur) Price-Less (r,ur)		Hop-In Food Stores Hop-In w/ethanol (r,ur,up) Union (ur,up,usp) Shell Sunoco		Kimber Petroleum Corp. Amoco Mobil	Amoco Mobil
Fortmeyer Inc. Pennzoil (r,ur,p,up,sp,usp,o) Ashland (r,ur,p,up,sp,usp,o)		Horkey Oil Co., Inc. Shell (r,ur,SU2000,RV2000) Gulf		Kingston Oil Supply Corp. Mobil Getty	Mobil
Foster Oil Co. Union 76 (r,ur,usp) Boron (ur)		Horn Distributing Co., Inc. Gulf		Kirschner Bros. Oil Co. Chevron Getty	
Franko Oil Co. Arco		Hub-Langie Fuel Corp. Hess Unifed BP Ashland NOCC		Krause Gentle Corp. Conoco Amoco Pennzoil Quaker State	
H.N. Funkhouser & Co. Texaco (r,ur) Exxon (r,ur,up)		Hucks Convenience Stores Hucks Shell Amoco Chevron Phillips		Kunz Oil Co. Koh Phillips	
Geldbach Petroleum Co., Inc. Mobil		Hudson Farris Corp. APCO		Lake Shore Petrocorp Phillips 66 (r,ur) Marathon (r,ur)	Phillips Trop Artic Phillips All Season
General Oil Co. Sinclair (r,ur,up)		Hughes Energy Inc. Mobil		Carlos R. Leffler (ur,up,usp)	Texaco Shell Chevron Mobil Gulf Arco
Getty Petroleum Corp. Getty (ur,up,usp)		Hull Oil Co. Chevron (r,ur,p,up,sp,usp,o) Hull (r,ur,p,up,sp,usp,o)		H. C. Lewis Oil Co. Exxon (r,ur,usp) Lewco (ur,up,usp)	Exxon

KEY:

- Gasoline
- (r) Regular
- (ur) Unleaded regular
- (p) Premium
- (up) Unleaded premium
- (sp) Super premium
- (usp) Unleaded super premium
- (o) Other
- (d) Diesel

Gasoline	Motor Oil	Gasoline	Motor Oil	Gasoline	Motor Oil
The Lyden Company		Mobil Oil Corp.		Piasa Motor Fuels, Inc.	
Amoco (r,ur,usp,d)	Amoco	Mobil Unleaded	Mobil Regular	Unocal (r,ur,up,usp)	Conoco
Union	Quaker State	Special	Mobil Heavy Duty	Conoco (r,ur,up,usp)	Amoco
	Valvoline	Super unleaded +	Mobil Super		Shell
			Mobil Delvac		Valvoline
			Mobil 1		Pennzoil
					Quaker State
Marathon Petroleum Co.		Munro Petroleum & Terminal Corp.		Pilot Oil Corp.	
Mile Maker (r)	V.E.P.	Shell	Shell	Pilot (r,ur,up)	Pilot
Extra M	All Season		MP		
Super M (p)	Multi-Power-3				
	Endurance				
	Marine-Terrain Master				
Martin Oil Marketing, Ltd.		Murphy Oil USA, Inc.		Pride of Texas Distributing Co. Inc.	
Martin (r,ur,usp,o,d)	Martin All Season 5W30	Spur (ur,usp)		Texaco	
	Martin All Season 10W30			Diamond Shamrock	
	Martin All Season 10W40				
McDowell Oil Service/Time Markets, Inc.		Musket Corp.		Pride Oil Co., Inc. (Miss.)	
Exxon (ur,up,usp)		Independent	Major Brands	Pride (r,ur,p,up,sp)	
McLeeler Oil, Inc.		National Oil & Gas Inc.		Publix Oil Co., Inc.	
Unocal 76	Kendall	Phillips (r,ur,p,up,sp,usp)	Marathon	Publix (r,ur,p,up,sp,usp,o)	
Marathon	Unocal 76	Marathon (r,ur,p,up,sp,usp)	Phillips		
Sunoco	Marathon		Mobil		
	Sunoco		Shell		
			Kendall		
Merchants Oil Inc.		Neal, Inc.		Quaker State Corp.	
Dino (r,ur,p,up,sp,usp)	Sinclair	Fina (ur,up,usp,o)	Fina	Quaker State (r,ur,up)	Quaker State HD
	Trop Arctic				Quaker State HDX
	Pennzoil				Universal Fleet
	Quaker State				Quaker State Super Blend
	Shell				Quaker State DeLuxe
					Quaker State Sterling
Merit Oil Corp.		Nella Oil Co.		Quality Oil Co. Limited Partnership	
Merit (r,ur,up)	Merit Special	1-Stop (r,ur,p,up,sp,usp,o)	Superflow Exxon	Shell (ur,up,usp)	Shell 30W
	Merit 10W30	Exxon (r,ur,p,up,sp,usp,o)	BEACON	Quality Plus (r,ur,usp)	Shell X-100
	Merit 10W40				Shell Rotella
	Merit ATF				Shell Fire & Ice
					Shell Fire & Ice 200
					Shell Truck Guard
Merritt Truax, Inc.		Olympian Oil Co.		Quarles Petroleum	
Texaco		Olympic (r,ur,up,usp)	Kendall	Shell	Shell
Aroco	Major Brands		Chevron	Texaco	
Shell			Exxon		
Chevron			Castrol		
Pride of Oregon			Olympic		
M.G.S. Oil, Petroleum & General Trading Corp.		Pal Oil Company, Inc.		Quiktrip Corp.	
Marathon (r,ur,usp,d)	Marathon 20W50	Gulf		Redline (r,p,sp)	Redline
	Marathon 15W40	Atlantic			
	Marathon W20 & 30	Pal			
	Aroco W20 & 30				
Mid-Continent Systems, Inc.		Parker Oil Co., Inc.		Red Hed Oil Co., Inc.	
Citgo (r,ur,up,usp)	Shell	Union 76	Union 76	Citgo (r,ur,up,usp)	Major Brands
Gulf (ur,up)	Citgo	Exxon	Exxon		
	Texaco	Citgo	Citgo		
		Petrol	Texaco		
Midwest Petroleum Co.		Patterson Oil Co., Inc.		Reinauer Petroleum Inc.	
Sunoco	All Temp	Mobil	Mobil	Citgo (r,ur,p,up,usp,o)	
Shell	Pennzoil	Gulf	Gulf		
	Sun	Citgo	Citgo		
	Shell				
	Chevron				
Mid-Missouri Oil Co.		Peavey Oil Co.		Reinhardt Oil Corp.	
Shell (ur,up,usp)	Shell	Texaco (r,ur,up,d)	Texaco		Sunoco
Citgo (r,ur,up,usp)	Citgo				Citgo
Miller Enterprises, Inc.		Pennzoil		Republic Oil Corp.	
Unocal (r,ur,p,up,sp,usp,o)		Pennzoil (r,ur,up,sp)	Pennzoil	Dixie (r,ur,up,usp,d)	Delco
Phillips (r,ur,p,up,sp,usp,o)			Wolf's Head		Rotella
Miller Oil Co.		Petroleum Marketers, Inc.		Reynolds Industries, Inc.	
Mobil (r,ur,up)	Miller	Shell	Shell	Port (ur,up,usp)	
Fina (r,ur,up)	Amoco	Exxon	Exxon		
Exxon (r,ur,up)	Exxon	Citgo	Citgo		
Citgo (r,ur,up)	Mobil				
Phillips (r,ur,up)					
Amoco (ur,up)					
Missouri Terminal Oil Co.		Petroleum Products Corp.		Roach Oil Co.	
Fina (r,ur,p,up,sp,usp,o,d)	Fina	Best (r,ur,up,usp,o)	Exxon	Texaco (ur,up,usp)	Valvoline
Sunoco (r,up)	Aroco		Sun		
	Sun		Mobil		
	Mobil		Shell		
	Sinclair		Gulf		
Missouri Terminal Oil Co.		Petrotex Marketing Inc.		Robinson Oil Co., Inc.	
		Shell (r,ur,up)	Fina	Rotten Robbie (r,ur,usp,d)	
			Quaker State		
			Pennzoil		
			Shell		
			Chevron		
Pettway Oil Co.		Phillips 66 Co.		Royster Oil Co., Inc.	
Amoco (ur,up,usp)	Amoco	Phillips (r,ur,p,up,sp,usp)	Unique	Gulf (ur,sp)	Nitrex
	Citgo		M M Motor Oil	BP (ur,up,usp)	All Season
	Mobil		Super HD II		Vanellus
	Phillips		Trop Arctic		
			HDS		
Phillips 66 Co.		Russell Petroleum Corp.		KEY:	
		Texaco (ur,up,o)	Quaker State	Gasoline	
		Spur (ur,up,o)	Texaco	(r) Regular	
		Saveway (ur,up,o)		(ur) Unleaded regular	
				(p) Premium	
				(up) Unleaded premium	
				(sp) Super premium	
				(usp) Unleaded super premium	
				(o) Other	
				(d) Diesel	

Gasoline	Motor Oil	Gasoline	Motor Oil	Gasoline	Motor Oil
Sahara Oil Co., Inc. Texaco (r,ur,usp,d)		The Spencer Co., Inc. Amoco (ur,r,o) Citgo (ur,r,o)	Amoco Citgo Texaco Quaker State	Tryon Oil Company Atlantic Hess	Magnum Wolf's Head Atlantic
Santes Oil Co., Inc. Shell (r,ur,usp) Marathon (r,ur,usp)	Shell	Star Oil Co. Shell (r,ur,up)	Shell	Ultra Power Corp. Gulf (r,ur,p,up,sp,usp,o) Ultra Power (r,ur,p,up,sp,usp,o)	Gulf Aroco
Save-X USA, Inc.	Pennzoil Havoline	Steuart Petroleum Co. Steuart (r,ur,p,up)	Cam2 Pennzoil	Ultramar Super Leaded 90 Super Unleaded 90 Super Premium 92	Beacon
SCASCO Texaco (r,ur,p,up,sp,usp,o) Hess (r,ur,p,up,sp,usp,o)	Texaco	Stevens Oil Co. Chevron (r,p,up,sp,usp,d)	Chevron RPM Custom Delo 400	Unocal Corp. 76 (r,ur,up,usp)	Unocal Heavy Duty Unocal Premium Unocal Guardoil Unocal Super 10W-30 Unocal Super 10W-40 Unocal 20W/50 High Performance
Sears Oil Co. Inc. Sears (r,ur,p,up,sp,usp)	Sears Premium Sears Supreme TRI Pure	Sugar Creek Corp. Mobil (r,ur,up,o) Sun (r,ur,up,o) Shell (r,ur,up,o) Citgo (r,ur,up,o)	Mobil Sun Shell Quaker State	Vista Marketing Group Ltd.	Pennzoil Quaker State
Shay Oil Co., Inc. Exxon (r,ur,p,up,sp,usp)	Exxon	Sumrail Oil Services, Inc. SOS		Wake Up Oil Co. Wake Up (r,ur,usp)	
Shelby Petroleum Corp. Peer (r,ur,p,up,sp,usp) Bonus (r,ur,p,up,sp,usp)	Bonus Regular Sail Premium Peer Premium Peer Heavy Duty Peer Multi-Grade	Sun Refining and Marketing Co. Sun & Atlantic (r) Atlantic (up,usp) Sunoco Ultra Sunoco Economy	Sun Lube Sunoco Ultra Super C Sunoco Ultra Atlantic Super Premium Atlantic Special	Warren Equities, Inc. Sunoco (r,ur,ultra) Citgo (r,ur,usp) Mobil (r,ur,usp)	Oilzum Citgo Sunoco Shell Mobil Castrol
Shell Oil Co. Shell (RU2000,SR2000, SU2000)	Shell X-100 Fire & Ice 2000 Super 2000 Shell Truck Guard	Sunshine Jr. Stores, Inc. Jr. (r,ur,up,usp) Citgo (r,ur,up,usp)	Rallye Citgo Texaco-Havoline Quaker State Castrol	West Penn Oil Co., Inc.	Emblem Oil
Shotmeyer Bros. Petroleum Corp. Mobil	Mobil	TCR, Inc. TCR (r,ur,p)	TCR	Western Marketing, Inc. Conoco (r,ur,usp) Shell (r,ur,usp)	Delco Conoco Par Conoco Fleet Conoco Super Conoco Fleet Supreme Shell Rotella Aero Shell
SICO Co. Amoco (ur,up,usp) Exxon (ur,up,usp)	Citgo Valvoline Amoco Atlantic Exxon	Taylor Oil Co. Etna (ur,up,usp)		A. T. Williams Oil Co. Wilco (r,ur,up,usp)	Wilco
Simon Oil Co., Inc. Sun Mobil Atlantic		Texaco Inc. Texaco (r,ur,up,sp,o)	URSA Oil Extra Duty URSA Oil Super Plus URSA Oil Premium Havoline Premium Havoline Supreme Havoline High Performance Havoline Superior	J.H. Williams Oil Co., Inc. Unocal (r,ur,up)	Unocal Custom Unocal HD Guardoil Unocal Premium Unocal Super Unocal HD-20W50
R.L. Smeltz Oil Co., Inc. Amoco Pennzoil	Amoco Pennzoil	Thornhill Oil Co. Amoco (ur,up,usp)	Amoco Texaco Quaker State	The Wills Group, Inc. Texaco (ur,up) Exxon (ur,up) Amoco BP	
Smith-Shafer Oil Co. SS (r,ur,up)		Thrifty Oil Co. Thrifty (r,ur,up,usp)	Thrifty	Wooten Oil Company Texaco (r,ur,up) Amoco (r,ur,up) Citgo (r,ur,up)	Texaco
SOS Oil Corp Gulf (ur,up)	Beaver SOS	Time Saver Stores Inc.	Golden State Quaker State Pennzoil	World Oil Co. World (r,ur,up,usp) Shell Aroco Texaco	
Southern Counties Oil Co. Aroco (ur,up) Texaco (ur,up,o)	Union Chevron Mobil Texaco Shell	Tooley Oil Co. Tooley's (r,ur,sp,usp,d) Shell (r,ur,sp,usp,d)		Wright Industries, Inc. Marathon (r,ur,up) Citgo (r,ur,up)	Citgo Marathon Texaco Quaker State Pennzoil
Southern Oil Co., Inc. Exxon	Exxon Superflow Pennzoil	Total Petroleum, Inc. Total (r,up) Vickers (ur,up) Road Runner (r,ur,up)	Total Big Value Total Golden Supreme Total All Season Total Quartz Total GTS Quality	York Oil Co., Inc. Citgo (r,ur,p,up,sp,usp) Texaco (r,ur,up)	Citgo Havoline Pennzoil Valvoline
Southern States Co-op Southern States	Co-op	Transit Oil Co. Transit (r,ur)	Transit		
		Travelers Petroleum, Inc. Texaco (r,ur,up,sp) Self Way (r,ur,p,up)			
		Trenton Oil Co. Inc. Amoco (ur,up,usp)	Amoco		
		Triton Inc. Happy (r,ur,up)	Happy		

KEY:	Gasoline
(r)	Regular
(ur)	Unleaded regular
(p)	Premium
(up)	Unleaded premium
(sp)	Super premium
(usp)	Unleaded super premium
(o)	Other
(d)	Diesel

Capital Spending in the Oil Industry: A 10-Year Overview, Revised and Updated

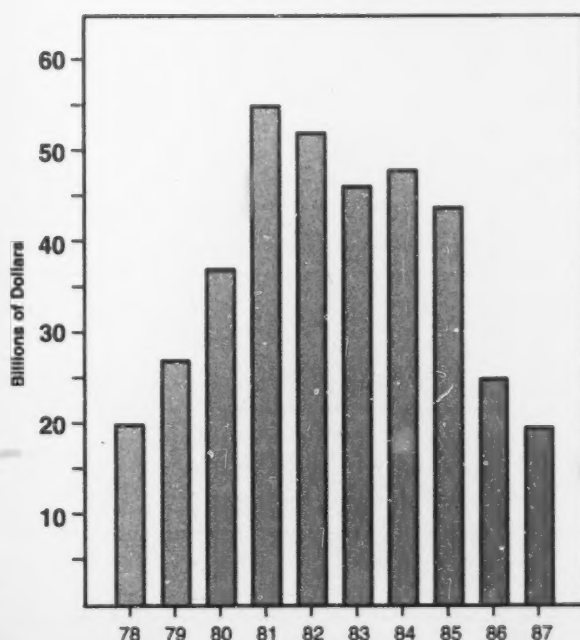
For the past 30 years, Chase Manhattan Bank has been publishing estimates of worldwide capital expenditures in the oil and gas industries. In 1987 and 1988, Chase Manhattan revised its data collection procedures and the new results are shown on this page. The new format reports only on exploration and production expenditures and on refinery expenditures. No longer available are the former estimates on pipelines, chemicals, marketing and transportation. To put the series on a firm footing, Chase Manhattan has revised all of the data back to 1977. The data below therefore are not compatible to information carried in the preceding issues of the NPN Factbook. Chase Manhattan said the new approach was necessary because, unlike the earlier days when a group of multi-national oil companies dominated the global industry, the roles of both production and consuming governments has increased and their presences are more noticeable in survey data.

(Millions of Dollars)

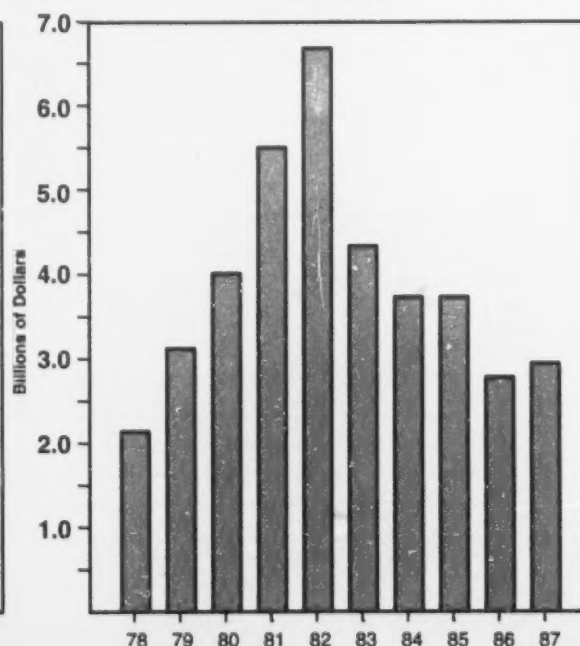
	1987	1986	1985	1984	1983	1982	1981	1980	1979	1978	10-Year Totals
United States											
Crude Oil and Natural Gas	19,760	24,830	43,640	48,060	42,260	52,210	54,730	36,990	27,410	20,030	369,600
Refineries*	2,960	2,800	3,710	3,710	4,400	6,730	5,530	4,000	3,080	2,080	39,000
Total	22,720	27,630	47,350	51,770	50,660	58,940	60,260	40,990	30,490	22,110	408,600
*Includes natural gas liquid plants.											
North America											
Crude Oil and Natural Gas	25,690	31,210	52,430	57,550	53,070	58,820	64,230	49,710	35,410	26,330	454,450
Refineries*	4,570	4,900	7,040	6,740	6,120	8,860	8,460	6,220	6,510	4,110	63,530
Total	30,260	36,110	59,470	64,020	59,190	67,680	72,690	55,930	41,920	30,440	517,980
*Includes natural gas liquid plants.											
World											
Crude Oil and Natural Gas	47,020	54,470	77,370	83,900	83,160	91,410	90,700	72,100	53,030	41,000	694,160
Refineries*	11,160	10,000	12,050	12,430	12,820	17,660	17,100	14,030	12,930	9,310	129,490
Total	61,070	67,280	91,000	98,500	100,960	115,370	114,100	90,240	68,600	53,380	823,650
*Includes natural gas liquid plants but no Liquefied Natural Gas plants; the world total includes the LNG plants, however.											

Source: Capital Investments of The World Petroleum Industry 1985 and 1986, Chase Manhattan Bank, New York, published in October 1988.

**U.S. Capital Expenditures
Exploration and Production**



**U.S. Capital Expenditures
Refineries**



Marketing Investments Peak in 1990

Capital spending in the downstream segment is expected to hit a peak in 1990, then fall a heady 18% in 1991, according to Data Resources, Inc., a subsidiary of McGraw-Hill, Inc. Data Resources

discontinued the bi-annual survey in 1990 so this is the last one in the series started by McGraw-Hill about 25 years ago.

Market Spending Peaks in '90, Dives in '91

MARKETING (Add 000,000)

1991 (Planned)	\$5,157 (-18.0)*
1990 (Planned)	\$6,288 (+24.9)
1989 (Estimated)	\$5,036 (+2.9)
1988 (Actual)	\$4,896 (+12.5)
1987 (Actual)	\$4,352 (+23.4)

TRANSPORTATION**

1991 (Planned)	\$2,776 (+20.9)
1990 (Planned)	\$2,296 (-7.7)
1989 (Estimated)	\$2,488 (+1.7)
1988 (Actual)	\$2,447 (+35.6)
1987 (Actual)	\$1,805 (-52.7)

EXPLORATION AND PRODUCTION

1991 (Planned)	\$29,119 (+18.7)
1990 (Planned)	\$24,529 (+4.8)
1989 (Estimated)	\$23,396 (-9.2)
1988 (Actual)	\$25,780 (+21.6)
1987 (Actual)	\$21,199 (+7.2)

REFINING

1991 (Planned)	\$3,240 (+2.9)
1990 (Planned)	\$3,120 (+8.1)
1989 (Estimated)	\$2,885 (+23.2)
1988 (Actual)	\$2,193 (+15.0)
1987 (Actual)	\$2,079 (-16.1)

OTHER***

1991 (Planned)	\$6,858 (+18.5)
1990 (Planned)	\$5,786 (+4.3)
1989 (Estimated)	\$5,549 (+10.4)
1988 (Actual)	\$5,025 (+17.7)
1987 (Actual)	\$4,269 (+4.8)

PETROCHEMICAL

1990 (Planned)	\$2,231 (+7.9)
1989 (Estimated)	\$2,067 (+37.0)
1988 (Actual)	\$1,509 (+49.1)
1987 (Actual)	\$1,012 (+17.6)

U.S. TOTAL

1990 (Planned)	\$44,250 (+6.8)
1989 (Estimated)	\$41,421 (-1.4)
1988 (Actual)	\$41,850 (+21.1)
1987 (Actual)	\$34,715 (+0.5)

* Figures in parentheses indicate percentage change from previous year.

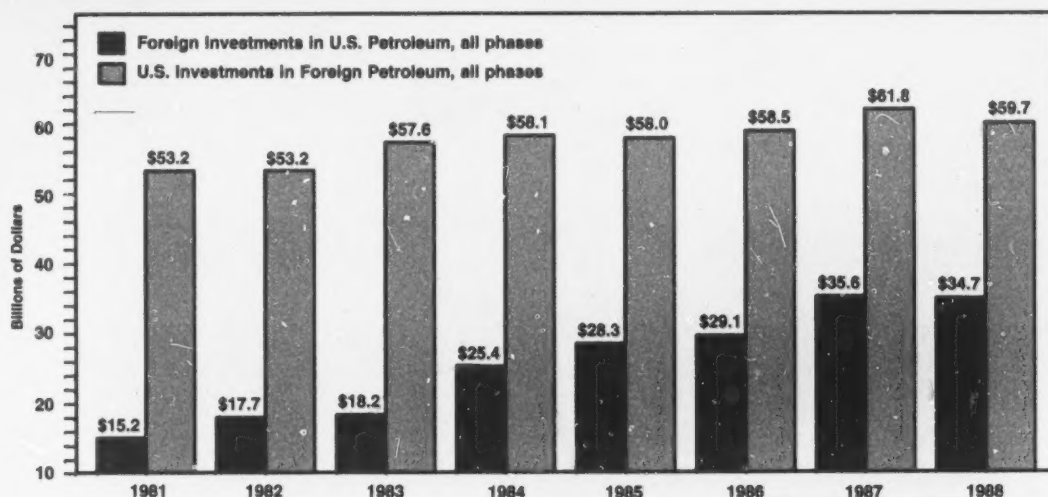
** Does not include gas pipelines.

*** Includes cost mining by oil companies.

X Insufficient replies to make valid projections.

Source: Data Resources Inc./McGraw-Hill Inc. Thirty-sixth survey of Preliminary Plans for New Plants and Equipment 1987-1991, data collected in April-May and published Dec. 9, 1989.

Foreign and U.S. Investments in Petroleum



Despite several major domestic acquisitions by overseas-based companies in 1988, foreign direct investments (FDI) in U.S. petroleum declined from the previous year by almost \$1-billion. It was the first decrease since 1976, according to the Energy Information Administration.

Foreign investments in the U.S. oil industry declined from the record high of \$35.6-billion in 1987 to \$34.7 billion in 1988. EIA reports the decrease was mainly due to BP America's repayment of \$2.4-billion in notes to its U.K. parent, British Petroleum. Putting aside this outflow of capital, additions to FDI in U.S. petroleum increased from \$0.9-billion to \$1.5-billion between 1987 and 1988.

The biggest transaction for the year, of course, was Saudi Arabia's purchase of 50% of Texaco's downstream assets in 23 East and Gulf Coast states for \$812-million. The transaction involved three refineries with a combined capacity of 615,000 b/d, 50 product terminals and 12,400 branded stations. Toronto-based Horsham Corp.'s acquisition of Clark Oil & Refining Co. for \$650-million and Ultramar's \$440-million purchase of Union Pacific's Wilmington, Calif. refinery were other major deals during the year.

About half of the value of the largest

FDI-related transactions in 1988 were related to refining and marketing investments, continuing a trend to more foreign involvement in U.S. downstream activities. Total FDIs in refining amounted to 27% of U.S. crude distillation capacity in 1988, up from 21% the year before and less than 15% in 1984. Foreign companies now have a stake in almost 20% of domestic refineries. At the retail end, foreign investors now own or market through more than one third of U.S. branded retail outlets and control supply of almost one fourth of the gasoline consumed.

Foreign Direct Investments in the U.S. (Billions of dollars)

Year	FDI in U.S. Petroleum	Total FDI in U.S.	% Petroleum of Total
1988	\$34.7	\$328.9	10.6%
1987	35.6	271.8	13.1
1986	29.1	220.4	13.2
1985	28.3	184.6	15.3
1984	25.4	164.6	15.4
1983	18.2	137.1	13.3
1982	17.7	124.7	14.2
1981	15.2	108.7	14.0

U.S. Direct Investments in Foreign Petroleum

Year	U.S. Direct Investment in Foreign Oil	Total U.S. Investment Abroad	% Petroleum of Total
1988	\$59.7	\$326.9	18.3%
1987	61.8	308.8	20.1
1986	58.5	259.8	22.5
1985	57.7	230.2	25.1
1984	58.1	211.5	27.5
1983	57.7	230.2	25.1
1982	57.8	207.8	27.8
1981	53.2	228.3	23.3

FDIs in Marketing, Refining and Production(a)

	1988	1987	1986
Branded retail outlets			
FDI companies	39,805	39,198	40,590
U.S. total	112,000	115,870	120,150
% FDI of U.S. total	36.5%	33.8%	33.8%
Gasoline supplied (in thousands of b/d)			
Total FDIs	1,751	1,586	1,565
U.S. total	7,336	7,206	7,034
% FDI of U.S. total	23.9%	23.2%	22.2%
Refineries			
Total FDIs	40	34	33
U.S. total	204	213	219
% FDI of U.S. total	19.6%	16.0%	13.4%
Crude distillation capacity (in thousands of b/d)			
Total FDIs	4,247	3,342	3,133
U.S. total	15,655	15,915	15,566
% FDI of U.S. total	27.1%	21.0%	20.1%
Crude oil and NGL production (in thousands of b/d)			
Total FDIs	1,523	1,613	1,512
U.S. total	10,289	10,008	10,289
% FDI of U.S. total	14.8%	16.2%	14.7%
Crude oil and NGL proved reserves (millions of bbl.)			
Total FDIs	6,433	6,453	5,626
U.S. total	35,063	35,403	35,054
% FDI of U.S. total	18.3%	18.2%	15.9%

(a) EIA has revised many of the totals originally published last year for 1987 in the categories shown. The revisions appear in the tables above.

How Oil Companies Handle

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED(a)	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer- operated	Salary- operated
Ada Resources	77	1	23	27	80	0
Advanced Oil Co.	20	2	20	—	5	15
Agway Petroleum Corp.	220	9	75	21	21	74
American Petroleum, Inc.	3,177	23	157	2,385	10	129
American Refining Group, Inc.	8	1	8	0	0	1
Amoco Corp.	9,909	31	3,868	6,041	3,401	315
Anchor Gasoline Corp.	61	1	61	—	61	—
Arkansas Valley Petroleum	75	2	5	—	5	—
ARCO	1,699	5	1,313	386	N/A	N/A
Armour Oil Co.	62	6	62	—	—	62
Ashland Oil, Inc.	1,800	18	452	—	452	—
Aztex Enterprises	31	1	31	—	—	31
BP America, Inc.	7,484	20	2,320	5,144	1,185	885
Begwell Oil Co., Inc.	27	2	12	—	3	—
E.M. Bailey	60	3	60	—	—	—
Bedford Valley Petroleum Corp.	51	3	—	48	42	—
Bell Fuels, Inc.	5	2	5	0	1	4
Best Oil Co.	17	2	12	5	—	17
Boatick Brothers, Inc.	19	2	11	—	11	—
Bray Terminals, Inc.	65	2	—	65	66	—
Brennan Petroleum Corp.	1	1	1	—	—	1
Browning Oil Co.	31	1	7	—	7	—
Buhrmaster Energy Group	3	1	—	3	—	—
Dennis K. Burke, Inc.	1	1	1	0	0	0
Campbell Oil Co.	72	1	27	—	27	—
Cannon Oil Corp.	17	3	17	—	—	17
Cel Oil Products Corp.	10	1	9	1	1	9
Cenex	972	14	961	11	7	61
Champlain Oil Co.	85	4	13	2	15	—
Chapman, Inc.	35	2	35	—	13	7
Chevron Corp.*	10,682	32	3,050	5,485	8,438	699
W.R. Childress Oil Co., Inc.	55	1	—	4	—	—
Circle K Corp.	988	23	N/A	—	—	—
Citgo Petroleum Corp.	8,463	42	N/A	N/A	—	—
Clark Oil & Refining Corp.	944	12	944	—	17	927
The Coastal Corp.	720	23	720	—	146	572
Coen Oil Co.	150	1	135	—	132	3
Colonial Oil Industries, Inc.	60	3	60	—	—	60
Comet Oil Co.	3	1	3	—	—	3
Commander Oil Corp.	—	—	—	—	—	—
Como Oil Co.	30	1	30	—	27	3
Conoco Inc.	4,915	37	526	4,389	4,389	526
Consumers Gasoline Stations Inc.	44	3	43	—	—	43
Consumers Oil	45	2	45	—	29	2
Convenient Petroleum Corp.	—	—	—	—	—	—
Cook & Cooley, Inc.	76	1	—	—	—	—
Crown Central Petroleum Corp.	722	8	649	36	101	584
Crystal Petroleum	25	1	25	—	—	25
C.S.C. Oil Co.	13	2	8	—	—	8
Curtis Parker Oil Co. Inc.	17	1	—	12	11	1
Curt's Oil Co., Inc.	16	3	13	—	—	13
Dairy Mart Convenience Stores, Inc.	430	15	0	—	—	—
K.E. David, Ltd.	6	2	2	—	2	—
DeBlois Oil Co.	41	2	41	—	11	30
Delta Group, USA Inc.	42	2	—	—	—	—
Diamond Shamrock Refining & Marketing Co.	1,947	8	654	1,250	—	684
Dickey Inc.	8	1	8	2	2	8
Drakes Refinery Stations, Inc.	6	1	6	—	—	—
East Coast Oil Corp.	41	1	41	—	—	41
Emro Marketing Co.	1,665	16	1,665	—	—	1,665
Engelfield Oil Co.	246	2	246	—	195	81
Exxon Co., U.S.A.	12,091	36	4,122	7,969	2,844	893
Farm & Home Oil Co.	42	2	—	42	25	8
FKG Oil Co.	50	6	50	—	—	50
Fleetman, Inc.	310	5	58	252	—	112
Flying J Inc.	115	23	115	—	28	—
Fortmeyer Inc.	1	1	1	—	—	—
Friends Convenience Stores	44	1	—	28	24	2
H.M. Furthouser & Co.	23	1	4	—	3	1
Gasco Gasoline, Inc.	42	1	33	—	6	—
General Oil Co.	30	1	2	—	—	2

(a) Includes District of Columbia.

*Excludes Airport & Marine Outlets, New Car Dealerships, and Military Exchanges

Product Distribution

BRANDED JOBBERS/COMMISSIONED AGENTS

Commission-operated	Full-service only	Self-service only	Self-service/Full-service	Total	Number selling . . .		
					Gasoline only	Fuel Oil only	Gasoline/Fuel Oil
0	27	5	18	16	0	0	16
—	15	5	—	—	—	—	—
1	0	91	5	13	1	0	12
0	127	2,034	381	371	8	0	363
7	0	8	0	0	0	0	0
152	991	4,956	3,962	1,071	N/A	0	N/A
—	—	61	—	—	10	10	—
—	—	—	5	2	—	—	2
N/A	N/A	N/A	N/A	34	26	N/A	8
—	—	53	9	—	—	—	—
—	385	6	61	159	—	—	159
—	—	30	1	0	—	—	—
260	15	205	935	515	—	12	503
9	3	6	3	—	—	—	—
—	—	—	—	—	—	—	—
—	33	5	10	2	—	—	2
—	4	1	0	—	—	—	—
—	1	15	1	—	—	—	—
—	3	6	2	0	—	—	—
—	—	—	65	10	—	—	10
—	—	1	—	—	—	—	—
—	—	—	7	0	—	—	—
—	—	—	3	—	3	—	—
0	1	0	0	1	—	—	1
—	—	27	—	0	—	—	—
—	—	17	—	—	—	—	—
—	5	5	—	11	—	—	11
0	133	252	587	972	73	0	899
—	13	—	2	0	—	—	—
15	1	28	6	—	—	—	—
—	1,279	4,407	3,450	651	0	0	65
ALL	—	ALL	—	0	—	—	—
—	—	—	—	425	—	—	—
—	2	924	18	0	—	—	—
—	42	653	25	104	104	—	—
—	40	3	92	2	2	—	—
—	3	4	53	0	—	—	—
—	1	2	—	—	—	—	—
—	—	—	—	—	—	—	—
—	0	25	5	—	—	—	—
—	466	3,961	488	618	463	0	155
—	3	39	2	—	—	—	—
14	42	—	3	—	—	—	—
—	—	—	—	2	—	—	2
—	—	551	134	—	—	—	—
—	—	24	1	3	—	—	3
—	0	4	4	8	—	—	8
—	5	3	4	3	—	—	3
—	—	13	—	—	—	—	—
—	—	—	—	0	—	—	—
—	2	—	—	1	—	—	1
—	21	20	—	41	41	—	—
—	—	—	—	—	—	—	—
—	5	1,200	45	130	95	10	25
—	3	3	2	4	2	—	2
—	2	4	—	—	—	—	—
—	—	39	2	0	—	—	—
—	5	1,660	—	0	—	—	—
—	48	67	131	3	—	—	3
—	N/A	N/A	N/A	701	343	6	361
5	32	8	2	0	—	—	—
—	—	46	4	—	—	—	—
198	—	305	5	4	—	—	4
—	5	19	91	16	—	—	16
—	—	—	—	—	—	—	—
—	—	4	22	1	—	—	1
—	—	—	4	0	—	—	—
3	—	42	—	—	—	—	—
—	2	—	—	1	—	—	—

BULK PLANTS				TERMINALS				Company
Company-operated				Company-operated				
Total	Salary-operated	Commission-operated	Jobber-operated Bulk Plants	Total	Salary-operated	Commission-operated	Jobber-operated Terminals	
3	2	1	15	N/A	—	—	—	Ada Resources
—	—	—	—	—	—	—	—	Advanced Oil Co.
133	121	0	12	10	10	—	—	Agway Petroleum Corp.
0	0	0	185	7	7	0	1	American Petrofina, Inc.
0	0	0	0	1	1	0	0	American Refining Group, Inc.
0	N/A	0	1,781	83	83	—	N/A	Amoco Corp.
10	—	10	—	2	—	—	—	Anchor Gasoline Corp.
1	—	—	1	0	—	—	—	Arkansas Valley Petroleum
0	0	0	0	33	N/A	N/A	N/A	ARCO
—	—	—	—	—	—	—	—	Armour Oil Co.
136	5	131	—	32	32	—	—	Ashland Oil, Inc.
1	1	—	—	0	—	—	—	Aztex Enterprises
81	—	81	420	60	60	—	0	BP America, Inc.
2	2	—	—	1	1	—	—	Bagwell Oil Co., Inc.
4	—	4	—	—	—	—	—	E.M. Bailey
4	—	—	4	—	—	—	—	Bedford Valey Petroleum Corp.
1	1	0	—	1	1	0	—	Bell Fuels, Inc.
—	—	—	—	—	—	—	—	Best Oil Co.
3	3	—	0	1	1	—	0	Bostick Brothers, Inc.
0	—	—	—	3	3	—	—	Bray Terminals, Inc.
—	—	—	—	—	—	—	—	Brennan Petroleum Co.
2	2	—	—	0	—	—	—	Browning Oil Co.
1	1	—	—	0	—	—	—	Buhrmaster Energy Group
4	4	—	—	0	—	—	—	Dennis K. Burke, Inc.
—	—	—	—	0	—	—	—	Campbell Oil Co.
1	1	—	—	0	—	—	—	Cannon Oil Corp.
—	—	—	837	7	6	1	0	Cel Oil Products Corp.
0	—	—	—	0	—	—	—	Cenex
—	—	—	—	—	—	—	—	Champlain Oil Co.
868	0	0	868	118	87	1	30	Chapman, Inc.
0	—	—	—	0	—	—	—	Chevron Corp.
0	—	—	—	44	—	—	—	W.R. Childress Oil Co., Inc.
0	—	—	—	13	13	—	—	Circle K Corp.
10	2	8	—	237	49	188	0	Citgo Petroleum Corp.
1	—	—	0	0	—	—	0	Clark Oil & Refining Corp.
1	—	—	—	2	2	—	—	The Coastal Corp.
—	—	—	—	—	—	—	—	Coen Oil Co.
3	3	—	—	3	3	—	—	Colonial Oil Industries, Inc.
126	0	0	126	401	51	350	0	Comet Oil Co.
—	—	—	—	1	1	—	—	Comet Oil Co.
0	—	—	—	0	—	—	—	Commander Oil Corp.
—	—	—	—	—	—	—	—	Como Oil Co.
4	1	3	0	0	—	—	—	Conoco Inc.
0	—	—	—	0	—	—	—	Consumers Gasoline Stations Inc.
3	1	2	1	0	—	—	—	Consumers Oil
0	—	—	—	0	—	—	—	Convenient Petroleum Corp.
2	2	—	—	1	1	—	—	Cook & Cooley, Inc.
—	—	—	—	—	—	—	—	Crown Central Petroleum Corp.
0	—	—	—	0	—	—	—	Crystal Petroleum
3	1	2	1	0	—	—	—	C.S.C. Oil Co.
—	—	—	—	—	—	—	—	Curtis Parker Oil Co. Inc.
0	—	—	—	0	—	—	—	Curt's Oil Co., Inc.
0	—	—	—	3	3	—	—	Dairy Mart Convenience Stores, Inc.
2	2	—	—	1	1	—	—	K.E. David, Ltd.
—	—	—	—	—	—	—	—	DeBlois Oil Co.
—	—	—	—	—	—	—	—	Delta Group, USA Inc.
—	—	—	—	13	13	—	—	Diamond Shamrock Refining
2	2	—	—	1	1	—	—	& Marketing Co.
0	—	—	—	0	—	—	—	Dickey Inc.
0	—	—	—	0	—	—	—	Drakes Refinery Stations, Inc.
9	8	1	1	—	—	—	—	East Coast Oil Corp.
0	—	—	—	59	59	0	—	Emro Marketing Co.

How Oil Companies Handle

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer- operated	Salary- operated
Getty Petroleum Corp.	2,240	13	1,264	376	1,409	75
Giant Industries, Inc.	27	3	—	—	—	—
Global Petroleum Corp.	137	10	137	—	117	20
Golden Gate Petroleum Co.	4	1	—	4	3	1
Golub Corp.	12	2	12	—	12	—
Gresham Petroleum Co.	30	2	30	—	—	—
Jack Griffith Petroleum	13	1	13	—	—	13
Gulf Oil	4,091	14	1,718	2,373	1,133	585
Harris Enterprises Inc.	28	2	28	—	26	2
Hawaiian Independent Refinery	25	1	25	—	—	25
Highway Oil, Inc.	208	22	208	—	—	125
Angus I. Hines, Inc.	55	3	—	8	6	2
Barney Holland Oil Co.	90	1	22	—	22	—
Horkey Oil Co., Inc.	41	1	13	—	13	—
Hough Petroleum	62	2	62	—	56	—
Huck's Convenience Stores	100	5	100	—	—	—
Hudson Oil Co.	11	2	11	—	—	11
Hull Oil Co.	31	2	28	3	13	9
Hurt Refining Co.	130	2	2	—	20	110
J. & L. Oil, Inc.	52	3	52	—	2	50
Jacobus Petroleum Products, Inc.	12	1	0	—	—	—
Johnson Products, Inc.	69	6	42	3	—	45
JS & J Service, Inc.	3	2	—	—	—	3
Kelley Williamson Co.	35	2	—	8	8	—
Kelso Oil Co. Inc. d/b/a Pride Oil	12	1	12	—	10	2
Kent Distributors, Inc.	18	1	7	7	0	0
Kerr-McGee Refining Corp.	1,786	20	68	1,718	1,179	535
Kimber Petroleum Corp.	75	1	75	—	60	15
Krause Gentle Oil Co.	137	6	—	—	—	—
Kwik Shop, Inc.	210	5	188	—	—	—
Lakeside Oil Co., Inc.	130	1	—	25	—	—
Carlos R. Leffler	200	1	120	—	60	60
H.C. Lewis Oil Co.	30	1	15	—	15	0
Lyden Co.	150	1	—	—	80	70
M.G.S. Oil, Petroleum—Gen. Trading Corp.	17	1	17	—	5	10
Majik Market Mgmt. Corp.	341	11	300	—	—	300
Marathon Petroleum Co.	2,516	8	540	1,976	540	—
Martin Oil Marketing, Ltd.	43	2	43	—	—	43
Mauger & Co.	40	1	—	—	—	—
McCall Oil Co.	—	—	—	—	—	—
McDowell Oil Service Inc.	30	1	30	—	—	28
McLeiser Oil, Inc.	50	1	—	—	—	—
Merritt Truax, Inc.	41	1	41	—	—	—
Mid-Continent Systems, Inc.	35	3	35	—	—	35
Mid-Missouri Oil Co.	15	1	3	—	3	—
Mid-States Petroleum	121	3	121	—	78	38
Miller Enterprises, Inc.	118	1	92	26	0	92
Miller Oil Co.	80	2	—	—	15	9
Mini-Mart Inc.	29	4	—	—	—	—
Missouri Terminal Oil Co.	30	1	2	4	3	—
Mobil Oil Corp.	9,486	33	4,372	5,114	2,066	866
Munford Inc.	95	5	70	25	—	25
Munro Petroleum Terminal Corp.	41	1	7	—	6	1
Murphy Oil USA, Inc.	629	12	400	229	173	—
Musket Corp.	123	6	123	—	—	123
National Oil & Gas Inc.	87	2	48	5	53	—
Neal, Inc.	26	1	0	—	—	—
Nella Oil Co.	27	2	27	—	—	27
Newell Oil Co., Inc.	15	1	—	15	10	—
Olympian Oil Co.	40	1	40	—	24	16
Pacific Northern Oil Co.	60	1	60	—	—	—
Pal Oil Company Inc.	59	1	56	1	45	9
Parker Oil Co., Inc.	129	3	8	—	8	—
Patterson Oil Co., Inc.	36	1	36	—	21	15
PDQ Food Stores, Inc.	69	4	—	—	—	—
Peavy Oil Co.	9	1	9	—	3	3
Pennzoil Products Co.	543	8	69	426	49	20
Petroleum Marketers, Inc.	137	2	137	—	83	54
Petroleum Products Corp.	57	2	—	49	49	—
Petroleum Sales & Service	40	1	28	—	17	—

Product Distribution (cont'd.)

BRANDED JOBBERS/COMMISSIONED AGENTS

Commission-operated	Full-service only	Self-service only	Self-service/Full-service	Total	Number selling ...		
					Gasoline only	Fuel Oil only	Gasoline/Fuel Oil
156	1,230	164	246	592	592	N/A	N/A
—	27	—	—	0	—	—	—
—	95	42	—	—	—	—	—
—	—	—	4	N/A	—	—	—
—	3	9	—	0	—	—	—
—	—	—	—	—	—	—	—
—	—	13	—	—	—	—	—
—	2,250	1,023	818	140	84	—	56
—	—	—	28	0	—	—	—
—	—	25	—	0	—	—	—
83	—	—	—	0	—	—	—
—	6	—	2	—	—	—	—
—	5	6	11	1	—	—	1
—	1	—	12	—	—	—	—
6	82	—	—	N/A	—	—	—
—	—	—	—	104	104	—	—
—	—	3	8	—	—	—	—
9	0	27	4	0	—	—	—
—	—	130	—	25	—	—	25
—	1	51	—	0	—	—	—
—	—	—	—	8	—	3	5
—	23	—	22	24	24	—	—
—	—	3	—	0	—	—	—
—	3	—	5	2	—	—	2
—	—	11	1	—	—	—	—
0	0	14	0	7	—	—	7
72	161	732	893	477	95	2	410
—	75	—	—	0	—	—	—
—	—	—	—	4	—	—	4
—	—	188	—	0	—	—	—
—	—	—	25	0	—	—	—
—	20	85	15	5	—	—	5
0	5	—	10	0	—	—	—
—	—	70	80	—	—	—	—
2	10	2	7	—	—	—	—
—	—	300	—	0	—	—	—
—	302	453	1,761	257	—	—	257
—	—	43	—	0	—	—	—
—	—	—	—	—	—	—	—
2	—	30	—	—	—	—	—
—	—	—	—	—	—	—	—
—	41	—	—	—	—	—	—
—	3	32	—	0	—	—	—
—	—	—	3	0	—	—	—
5	46	44	31	7	—	1	6
26	—	118	—	1	—	—	—
—	2	7	—	—	—	—	—
—	—	—	—	0	—	—	—
—	2	1	3	3	0	0	3
0	N/A	N/A	N/A	1,100	0	535	565
—	—	95	—	—	95	—	—
—	1	—	6	—	—	—	—
—	—	500	129	0	—	—	—
—	—	123	—	—	—	—	—
—	5	15	33	21	—	—	21
—	—	—	—	—	—	—	—
—	—	27	—	0	—	—	—
5	1	6	8	—	—	—	—
—	—	40	—	—	—	—	—
—	60	—	—	—	—	—	—
3	16	38	3	0	—	—	—
—	—	—	8	—	—	—	—
0	8	16	12	0	—	—	—
—	—	69	—	—	—	—	—
3	—	—	—	—	—	—	—
426	50	290	145	93	2	0	91
—	—	130	7	0	—	—	—
—	8	2	47	11	—	—	11
11	28	—	—	0	—	—	—

BULK PLANTS				TERMINALS				Company
Total	Company-operated			Total	Company-operated			
	Salary-operated	Commission-operated	Jobber-operated Bulk Plants		Salary-operated	Commission-operated	Jobber-operated Terminals	
—	—	—	—	24	—	—	—	Getty Petroleum Corp.
—	—	—	—	—	—	—	—	Giant Industries, Inc.
—	—	—	—	44	5	—	—	Global Petroleum Corp.
7	7	—	—	0	—	—	—	Golden Gate Petroleum Co.
0	—	—	—	0	—	—	—	Golub Corp.
—	—	—	—	—	—	—	—	Gresham Petroleum Co.
—	—	—	—	—	—	—	—	Jack Griffith Petroleum
—	—	—	—	92	19	—	70	Gulf Oil
3	—	—	—	0	—	—	—	Harris Enterprises Inc.
0	—	—	—	4	4	—	—	Hawaiian Independent Refinery
0	—	—	—	0	—	—	—	Highway Oil, Inc.
4	4	—	—	—	—	—	—	Angus I. Hines, Inc.
2	1	—	1	0	—	—	—	Barney Holland Oil Co.
2	2	—	—	0	—	—	—	Horkay Oil Co., Inc.
1	1	—	—	N/A	N/A	—	—	Hough Petroleum
0	—	—	—	0	—	—	—	Huck's Convenience Stores
—	—	—	—	—	—	—	—	Hudson Oil Co.
1	1	—	—	0	—	—	—	Hull Oil Co.
0	—	—	—	4	2	—	25	Hunt Refining Co.
0	—	—	—	0	—	—	—	J. & L. Oil, Inc.
10	9	1	—	2	2	—	—	Jacobus Petroleum Products, Inc.
0	—	—	—	0	—	—	—	Johnson Products, Inc.
0	—	—	—	0	—	—	—	JS & J Service
4	2	2	—	—	—	—	—	Kelley Williamson Co.
—	—	—	—	—	—	—	—	Kelso Oil Co., Inc.
0	—	—	—	0	—	—	—	Kent Distributors, Inc.
324	1	0	323	18	16	0	2	Kerr-McGee Refining Corp.
0	—	—	—	0	—	—	—	Kimber Petroleum Corp.
0	—	—	—	0	—	—	—	Krause Gentle Oil Co.
0	—	—	—	0	—	—	—	Kwik Shop, Inc.
0	—	—	—	3	—	—	—	Lakeside Oil Co., Inc.
3	3	—	3	3	3	—	3	Carlos R. Leffler
1	1	—	—	0	—	—	—	H.C. Lewis Oil Co.
3	—	—	—	—	—	—	—	Lyden Co.
—	—	—	—	—	—	—	—	M.G.S. Oil, Petroleum & Gen. Trading Corp.
0	—	—	—	0	—	—	—	Majik Market Mgmt. Corp.
339	—	—	293	53	—	—	—	Marathon Petroleum Co.
0	—	—	—	3	3	—	—	Martin Oil Marketing, Ltd.
—	—	—	—	—	—	—	—	Mauger & Co.
—	—	—	—	2	2	—	—	McCall Oil Co.
0	—	—	—	—	—	—	—	McDowell Oil Service Inc.
3	—	—	3	—	—	—	—	McLeiser Oil, Inc.
4	4	—	—	0	—	—	—	Merritt Truax, Inc.
1	1	—	—	0	—	—	—	Mid-Continent Systems, Inc.
0	—	—	—	0	—	—	—	Mid-Missouri Oil Co.
11	7	0	4	1	—	1	—	Mid-States Petroleum
—	—	—	—	—	—	—	—	Miller Enterprises, Inc.
3	—	—	—	1	—	—	1	Miller Oil Co.
0	—	—	—	0	—	—	—	Mini-Mart Inc.
2	2	—	2	1	1	—	—	Missouri Terminal Oil Co.
3	0	1	2	64	64	0	0	Mobil Oil Corp.
—	—	—	—	—	—	—	—	Munford Inc.
1	1	—	—	1	1	—	—	Munro Petroleum Terminal Corp.
0	—	—	—	8	—	—	—	Murphy Oil USA, Inc.
—	—	—	—	—	—	—	—	Musket Corp.
17	—	14	3	0	—	—	—	National Oil & Gas Inc.
0	—	—	—	—	—	—	—	Neal, Inc.
0	—	—	—	0	—	—	—	Nella Oil Co.
1	1	—	—	—	—	—	—	Newell Oil Co., Inc.
—	—	—	—	—	—	—	—	Olympian Oil Co.
—	—	—	—	—	—	—	—	Pacific Northern Oil Co.
2	2	—	—	0	—	—	—	Pal Oil Company Inc.
11	11	—	—	1	—	—	—	Parker Oil Co., Inc.
1	—	—	—	0	—	—	—	Patterson Oil Co., Inc.
—	—	—	—	—	—	—	—	PDQ Food Stores, Inc.
—	—	—	—	—	—	—	—	Peavy Oil Co.
22	2	0	20	2	2	0	0	Pennzoil Products Co.
7	7	—	N/A	0	—	—	—	Petroleum Marketers, Inc.
—	—	—	—	8	—	—	—	Petroleum Products Corp.
0	—	—	—	0	—	—	—	Petroleum Sales & Service

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED (a)	BRANDED SERVICE STATIONS			
			Supplied Directly	Supplied Through Jobbers and Commissioned Agents	Lessee/ Dealer- operated	Salary- operated
Phillips 66 Co.	8,656	35	—	—	—	—
Piasa Motor Fuels, Inc.	21	2	21	—	15	6
Pride of Texas Dist. Co.	41	1	29	10	38	1
Pride Oil Co., Inc. (Miss.)	17	2	17	—	—	2
Private Brand Services Inc.	1	1	—	—	—	—
Promana, Inc.	25	1	25	—	—	25
Purity Oil Co.	16	1	14	2	3	10
Quincy Oil	0	—	0	—	—	—
Racetrac Petroleum, Inc.	309	13	309	—	139	160
Red Hed Oil Co., Inc.	38	1	4	0	3	0
Reinauer Petroleum Co.	7	1	7	—	7	—
Remote Services, Inc.	249	8	0	0	—	—
Republic Oil Corp.	5	1	—	5	—	5
Reynolds Industries, Inc.	5	2	5	—	—	5
River Oil Co.	40	2	9	—	9	—
Roach Oil Co.	10	2	9	—	4	5
Robinson Oil Co., Inc.	25	1	25	—	—	25
Royster Oil Co., Inc.	32	1	32	—	17	1
Russell Petroleum Corp.	19	1	—	—	—	—
Sahara Oil Co., Inc.	21	1	—	18	4	17
Santee Oil Co., Inc.	12	1	—	—	4	—
SATCO	33	2	5	0	1	4
Save-X, USA, Inc.	0	—	—	—	—	—
SCASCO	40	1	21	—	10	2
Schaeffer Oil, Inc.	7	2	—	—	—	—
Sears Oil Co., Inc.	11	1	6	—	—	6
Shay Oil Co., Inc.	20	1	20	—	2	16
Shelby Petroleum Corp.	20	2	20	—	—	—
Shell Oil Co.	9,763	40	4,465	N/A	4,183	282
Shotmeyer Bros. Petroleum Corp.	32	1	32	—	17	—
SICO Co.	131	3	131	0	57	23
Simmons Oil Corp.	—	—	—	—	—	—
Simon Oil Co. Inc.	100	1	90	—	90	—
R.L. Smeltz Oil Co., Inc.	20	—	—	20	3	—
Smith-Schafer Oil Co.	5	1	5	—	—	5
SOS Oil Corp.	50	1	45	—	45	—
Southern Counties Oil Co.	90	1	90	—	80	10
Southern Oil Co., Inc.	8	1	—	4	2	1
The Spencer Companies	51	1	6	—	4	—
Star Oil Co.	22	1	16	2	18	—
Stevens Oil Co.	47	1	15	—	15	0
Sugarcreek Corp.	300	2	144	6	90	6
Sumrall Oil Services, Inc.	8	1	—	—	—	—
Sun Refining & Marketing Co.	6,445	28	2,574	3,480	5,682	372
Sunshine Jr. Stores, Inc.	303	5	267	36	—	—
T.J. Terminals Corp.	2	1	2	0	1	—
Taylor Oil Co.	55	2	55	—	—	—
Texaco Inc.	16,890	49	3,200	13,690	1,170	840
Thornhill Oil Co., Inc.	28	1	—	28	18	10
Thornton Oil Corp.	96	6	—	—	—	96
Thrifty Oil Co.	155	1	155	—	—	155
Time Saver Store	115	1	—	—	—	—
Tooley Oil Co.	7	1	7	—	—	7
Total Petroleum, Inc.	2,776	22	620	2,156	18	620
Transit Oil Co.	—	2	18	—	—	16
Trenton Oil Co.	31	1	31	—	17	—
Ultra Power Corp.	12	1	—	9	8	3
Ultramar (formerly Beacon)	350	1	245	105	—	175
United Refining Co.	324	3	—	—	—	—
Unocal Corp.*	7,316	43	2,632	4,684	2,532	94
V-1 Oil Co.	26	5	—	—	4	22
Vista Marketing Group Ltd.	16	4	16	—	—	16
Waco Oil Co. Inc.	16	2	16	—	—	16
Wake Up Oil Co., Inc.	38	1	38	—	—	38
Warelubco, Inc.	96	5	96	0	1	95
Warren Equities, Inc.	268	8	268	—	81	187
Webster Oil Co.	23	1	3	—	3	—
Wesson Inc.	40	1	40	—	25	12
A.T. Williams Oil Co.	91	2	91	—	—	91
J.H. Williams Oil Co., Inc.	80	1	34	2	20	2
The Wills Group, Inc.	130	3	80	—	35	25
Wooten Oil Co.	33	2	5	—	5	—
Wright Industries, Inc.	18	1	18	—	18	—
York Oil Co., Inc.	10	1	9	—	—	9

*Does not include Unocal's Unoven joint venture.

BRANDED JOBBERS/COMMISSIONED AGENTS

Commission- operated	Full- service Only	Self- service Only	Self- service/ Full-service	Total	Number selling ...		
					Gasoline Only	Fuel Oil Only	Gasoline/ Fuel Oil
—	—	—	—	1,155	26	0	1,129
0	—	6	15	0	—	—	—
15	—	—	10	1	1	—	—
—	—	16	1	0	—	—	—
—	—	—	—	—	—	—	—
—	—	25	—	0	—	—	—
3	—	14	2	0	—	—	—
—	—	—	—	—	—	—	—
1	—	—	4	7	—	—	7
—	6	1	—	—	—	—	—
—	—	—	—	0	—	—	—
—	4	5	—	—	—	—	—
—	—	1	—	—	—	—	—
—	—	—	9	1	1	—	—
—	2	1	6	0	—	—	—
—	—	25	—	0	—	—	—
—	5	7	20	0	—	—	—
—	—	—	—	12	11	—	—
—	2	18	1	21	21	—	—
—	—	4	—	—	—	—	—
0	5	0	0	0	0	0	0
—	—	—	—	3	3	—	—
—	4	9	8	—	—	—	—
—	—	—	—	1	—	—	1
—	—	6	—	N/A	—	—	—
—	—	20	—	—	20	—	—
—	20	—	—	N/A	—	—	—
—	219	1,707	2,539	409	N/A	N/A	N/A
15	32	—	—	0	—	—	—
51	40	70	21	0	—	—	—
—	—	—	—	—	—	—	—
—	50	15	25	1	—	—	1
—	9	3	8	—	—	—	—
—	—	5	—	0	—	—	—
—	5	—	40	—	—	—	—
—	0	90	—	0	—	—	—
1	3	—	1	N/A	—	—	—
2	2	—	4	2	—	—	—
—	—	7	11	0	—	—	—
0	0	0	15	0	—	—	—
54	85	30	35	5	—	2	3
—	—	—	—	—	—	—	—
N/A	N/A	N/A	N/A	3,480	N/A	N/A	N/A
36	—	303	—	N/A	—	—	—
—	2	—	—	—	—	—	—
55	—	55	—	0	—	—	—
310	1,700	9,290	5,900	1,297	0	300	997
—	—	28	6	—	—	—	—
—	2	94	—	0	—	—	—
—	—	155	—	0	—	—	—
—	—	—	—	0	—	—	—
—	—	7	—	N/A	—	—	—
—	2	608	10	455	195	0	250
—	—	18	—	1	—	—	—
14	31	—	—	N/A	—	—	—
1	3	9	—	24	23	—	1
—	—	350	—	50	—	—	50
—	—	—	—	—	—	—	—
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
—	—	21	—	N/A	—	—	—
—	—	18	—	0	—	—	—
—	3	13	—	—	—	—	—
—	1	5	32	0	—	—	—
—	0	23	73	0	—	—	—
—	51	161	55	—	—	—	—
—	—	—	3	—	—	—	—
3	10	15	15	0	—	—	—
—	—	91	—	—	—	—	—
0	1	2	33	1	—	—	1
20	2	20	58	1	—	—	1
—	4	—	1	0	—	—	—
—	—	—	18	0	—	—	—
—	—	9	—	0	—	—	—

BULK PLANTS				TERMINALS				Company
Company-operated				Company-operated				
Total	Salary-operated	Commission-operated	Jobber-operated Bulk Plants	Total	Salary-operated	Commission-operated	Jobber-operated Terminals	
1	1	—	—	0	—	—	—	Phillips 66 Co.
1	—	—	—	2	—	—	—	Piase Motor Fuels, Inc.
0	—	—	—	0	—	—	—	Pride of Texas Dist. Co.
—	—	—	—	—	—	—	—	Pride Oil Co., Inc. (Miss.)
2	2	—	—	2	2	—	—	Private Brand Services Inc.
0	—	—	—	0	—	—	—	Promana, Inc.
8	1	7	0	1	1	—	—	Purity Oil Co.
—	—	—	—	—	—	—	—	Quincy Oil
1	1	—	—	0	—	—	—	Racetrac Petroleum, Inc.
0	—	—	—	0	—	—	—	Red Hed Oil Co., Inc.
—	—	—	—	—	—	—	—	Reinauer Petroleum Co.
—	—	—	—	—	—	—	—	Remote Services, Inc.
—	—	—	—	—	—	—	—	Republic Oil Corp.
3	2	1	—	0	—	—	—	Reynolds Industries, Inc.
1	1	—	—	0	—	—	—	River Oil Co.
0	—	—	—	0	—	—	—	Roach Oil Co.
3	3	—	—	0	—	—	—	Robinson Oil Co., Inc.
1	1	—	—	1	1	—	—	Royster Oil Co., Inc.
2	—	2	—	0	—	—	—	Russell Petroleum Corp.
2	2	—	—	—	—	—	—	Sahara Oil Co., Inc.
0	0	0	0	0	0	0	0	Santee Oil Co., Inc.
1	1	—	—	0	—	—	—	SATCO
5	—	—	—	—	—	—	—	Save-X, USA, Inc.
—	—	—	—	—	—	—	—	SCASCO
N/A	—	—	—	—	4	—	0	Schaeffer Oil, Inc.
—	1	—	1	—	—	—	0	Sears Oil Co., Inc.
N/A	—	—	—	N/A	—	—	—	Shay Oil Co., Inc.
0	0	—	474	107	72	35	N/A	Shelby Petroleum Corp.
1	1	—	—	0	—	—	—	Shell Oil Co.
11	11	0	0	1	1	0	0	Shotmeyer Bros. Petroleum Corp.
1	—	—	—	1	—	—	—	SICO Co.
0	—	—	—	N/A	—	—	—	Simmons Oil Corp.
—	—	—	—	—	—	—	—	Simon Oil Co. Inc.
0	—	—	—	0	—	—	—	R.L. Smeltz Oil Co., Inc.
1	1	—	—	—	—	—	—	Smith-Shafer Oil Co.
1	—	—	—	—	—	—	—	SOS Oil Corp.
3	3	—	—	0	—	—	—	Southern Counties Oil Co.
1	—	—	—	N/A	—	—	—	Southern Oil Co., Inc.
0	—	—	—	0	—	—	—	The Spencer Companies, Inc.
3	—	—	3	0	—	—	—	Star Oil Co.
1	1	—	—	0	—	—	—	Stevens Oil Co.
13	11	—	2	3	3	—	—	Sugarcreek Corp.
—	—	—	—	—	—	—	—	Sumrail Oil Services, Inc.
N/A	—	—	—	37	N/A	N/A	N/A	Sun Refining & Marketing Co.
N/A	—	—	—	N/A	—	—	—	Sunshine Jr. Stores, Inc.
—	—	—	—	—	—	—	—	T.J. Terminals
0	—	—	—	2	2	—	—	Taylor Oil Co.
1,268	0	0	1,268	68	67	0	1	Texaco Inc.
4	4	—	—	0	—	—	—	Thornhill Oil Co., Inc.
0	—	—	—	0	—	—	—	Thornhill Oil Corp.
0	—	—	—	0	—	—	—	Thrifty Oil Co.
0	—	—	—	0	—	—	—	Time Saver Store
N/A	—	—	—	N/A	—	—	—	Tooley Oil Co.
189	2	—	187	10	5	—	5	Total Petroleum, Inc.
—	—	—	—	—	—	—	—	Transit Oil Co.
N/A	—	—	—	N/A	—	—	—	Trenton Oil Co.
—	—	—	0	—	—	—	0	Ultra Power Corp.
0	—	—	—	0	—	—	—	Ultramar
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	United Refining Co.
N/A	—	—	—	N/A	—	—	—	Unocal Corp.
0	—	—	—	0	—	—	—	V-1 Oil Co.
—	—	—	—	—	—	—	—	Vista Marketing Group Ltd.
0	—	—	—	0	—	—	—	Waco Oil Co., Inc.
1	1	—	—	0	—	—	—	Wake Up Oil Co., Inc.
8	8	—	—	1	1	—	—	Warelubco, Inc.
1	1	—	—	—	—	—	—	Warren Equities, Inc.
1	1	—	—	—	—	—	—	Webster Oil Co.
1	1	—	—	0	—	—	—	Wesson, Inc.
—	—	—	—	—	—	—	—	A.T. Williams Oil Co.
4	—	1	—	0	—	—	—	J.H. Williams Oil Co., Inc.
10	9	1	N/A	1	1	—	N/A	The Wills Group, Inc.
1	1	—	—	0	—	—	—	Wooten Oil Co.
0	—	—	—	0	—	—	—	Wright Industries, Inc.
1	1	—	—	0	—	—	—	York Oil Co., Inc.

Branded Retail Outlets

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	New England						Middle Atlantic		
			Maine	N.H.	Vt.	Mass.	R.I.	Conn.	N.Y.	N.J.	Pa.
Advanced Oil Co.	20	2	—	—	—	—	—	—	12	8	—
Agway Petroleum Corp.	220	9	2	6	7	14	1	3	131	11	40
American Petrofina	3,177	23	—	—	—	—	—	—	—	—	—
American Refining Group, Inc.	8	1	—	—	—	—	—	—	—	—	8
Amoco Corp.	9,909	31	—	—	—	—	—	43	323	323	435
Armour Oil Co.	62	6	—	—	—	—	—	—	—	—	—
Ashland Oil, Inc.	1,800	18	—	—	—	—	—	—	—	—	33
Aztex Enterprises	31	1	—	—	—	—	—	—	—	—	—
BP America (Ohio)	7,464	26	1	47	32	75	—	51	10	90	310
Bagwell Oil Co., Inc.	27	2	—	—	—	—	—	—	—	—	—
Bedford Valley Petroleum Corp.	51	3	—	—	—	—	—	—	—	—	26
Best Oil Co.	17	2	—	—	—	—	—	—	—	—	16
Bostick Brothers, Inc.	19	2	—	—	—	—	—	—	—	—	—
Bray Terminals, Inc.	65	2	—	—	10	—	—	—	55	—	—
Browning Oil Co.	31	1	—	—	—	—	—	—	—	—	—
Buhrmaster Energy Group	3	1	—	—	—	—	—	—	3	—	—
Dennis K. Burke, Inc.	1	1	—	—	—	1	—	—	—	—	—
Campbell Oil Co.	72	1	—	—	—	—	—	—	—	—	—
Cannon Oil Corp.	17	3	—	—	—	—	—	—	—	—	—
Cal Oil Products Corp.	10	1	—	—	—	—	—	—	—	—	—
CENEX	972	14	—	—	—	—	—	—	—	—	—
Champlain Oil Co.	85	4	—	8	71	1	—	—	5	—	—
Chevron Corp.*	10,682	33	—	—	—	—	—	—	—	—	3
Circle K Corp.	898	23	1	—	—	4	—	2	—	—	—
CITGO	8,463	42	165	135	75	304	46	217	592	175	392
Clark Oil & Refining Corp.	944	12	—	—	—	—	—	—	—	—	5
The Coastal Corp.	720	23	—	—	—	2	—	—	—	42	6
The Coen Company	150	1	—	—	—	—	—	—	—	—	—
Colonial Oil Industries, Inc.	60	3	—	—	—	—	—	—	—	—	—
Comet Oil Co.	3	2	—	—	—	—	—	—	—	—	—
Conoco Inc.	5,484	37	—	—	—	—	—	—	—	—	13
Consumers Gasoline Stations, Inc.	44	3	—	—	—	—	—	—	—	—	—
Consumers Oil	45	2	—	—	—	—	—	—	—	38	7
Crown Central Petroleum Corp.	722	8	—	—	—	—	—	—	—	—	2
Crystal Flash Petroleum Corp.	25	1	—	—	—	—	—	—	—	—	—
C.S.C. Oil Co.	13	2	—	—	—	—	—	—	—	—	—
Dairy Mart Convenience Stores, Inc.	430	15	—	4	—	14	3	29	12	—	2
K.E. David, Ltd.	6	2	—	—	—	—	—	—	—	1	5
DeBlois Oil Co.	41	2	—	—	—	12	29	—	—	—	—
Delta Group USA, Inc.	42	2	—	—	—	—	—	—	—	—	—
Drakes Refinery Stations	6	1	—	—	—	—	—	—	—	—	—
East Coast Oil Corp.	41	1	—	—	—	—	—	—	—	—	—
Enro Marketing Co.	1,665	16	—	—	—	—	—	—	—	—	—
Engelfield Oil Co.	246	2	—	—	—	—	—	—	—	—	—
Exxon Company U.S.A.	12,091	38	190	75	—	132	12	81	242	481	605
FKG Oil Co.	50	6	—	—	—	—	—	—	—	—	—
Farm & Home Oil Co.	42	2	—	—	—	—	—	—	—	3	39
Fleetman, Inc. dba Fuelman	310	5	—	—	—	—	—	—	—	—	—
Flying J Inc.	115	23	—	—	—	—	—	—	—	—	—
Fortmeyer Co.	1	1	—	—	—	—	—	—	—	—	—
H.N. Funkhouser & Co.	23	1	—	—	—	—	—	—	—	—	—
Getty Petroleum Corp.	2,240	13	99	82	59	207	31	113	721	353	382
Golub Corp.	12	2	—	—	—	1	—	—	11	—	—
Gresham Petroleum Co.	30	1	—	—	—	—	—	—	—	—	—
Gulf Oil	4,061	14	198	164	124	598	95	328	742	685	812
Highway Oil, Inc.	206	22	—	2	2	—	—	—	23	—	21
Angus I. Hines, Inc.	55	3	—	—	—	—	—	—	—	—	—
Holland Oil Co.	—	—	—	—	—	—	—	—	—	—	—
Hough Petroleum	62	2	—	—	—	—	—	—	—	59	3
Huck's Convenience Stores	100	5	—	—	—	—	—	—	—	—	—
Hull Oil Co.	31	2	—	—	—	—	—	—	—	—	—
Hunt Refining Co.	130	2	—	—	—	—	—	—	—	—	—
Jacobus Petroleum Products, Inc.	12	1	—	—	—	—	—	—	—	—	—
J & L Oil, Inc.	52	3	—	—	—	—	—	—	—	—	—
Johnson Products, Inc.	69	6	34	20	5	2	1	—	7	—	—

*Excludes Airport & Marine Outlets/New Car Dealerships, and Military Exchanges.

in the United States

[illegible]

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	New England						Middle Atlantic		
			Maine	N.H.	Vt.	Mass.	R.I.	Conn.	N.Y.	N.J.	Pa.
Kelco Oil Co. Inc., dba Pride Oil	12	1	—	—	—	—	—	—	—	—	—
Kerr-McGee Refining Corp.	1,766	20	—	—	—	—	—	—	—	—	—
Kimber Petroleum Corp.	75	1	—	—	—	—	—	—	—	75	—
Kwik Shop Inc.	210	5	—	—	—	—	—	—	—	—	—
Carlos R. Laffler	200	1	—	—	—	—	—	—	—	—	200
H.C. Lewis Oil Co.	30	1	—	—	—	—	—	—	—	—	—
The Lyden Company	150	1	—	—	—	—	—	—	—	—	—
Marathon Petroleum Co.	2,516	8	—	—	—	—	—	—	—	—	13
Martin Oil Marketing, Ltd.	43	2	—	—	—	—	—	—	—	—	—
Mauger & Co.	40	1	—	—	—	—	—	—	—	—	40
McDowell Oil Service Inc.	30	1	—	—	—	—	—	—	—	—	30
McLeiser Oil, Inc.	50	1	—	—	—	—	—	—	—	—	—
M.G.S. Oil, Petroleum & General Trading Corp.	17	1	—	—	—	—	—	—	—	—	—
Mid-Continent Systems Inc.	35	3	—	—	—	—	—	—	—	—	—
Mid-States Petroleum	121	3	—	—	—	—	—	—	—	—	—
Miller Enterprises, Inc.	118	1	—	—	—	—	—	—	—	—	—
Miller Oil Co.	80	2	—	—	—	—	—	—	—	—	—
Mobil Oil Corp.	9,466	33	237	121	146	557	96	311	1,344	485	614
Munford, Inc.	95	5	—	—	—	—	—	—	—	—	—
Munro Petroleum & Terminal Corp.	41	1	—	—	—	—	—	—	—	—	—
Murphy Oil USA, Inc.	629	12	—	—	—	—	—	—	—	—	—
National Oil & Gas Inc.	87	2	—	—	—	—	—	—	—	—	—
Pai Oil Company Inc.	59	1	—	—	—	—	—	—	59	—	—
Parker Oil Co., Inc.	129	3	—	—	—	—	—	—	—	—	—
Patterson Oil Co., Inc.	36	1	—	—	—	—	—	36	—	—	—
PDQ Food Stores, Inc.	69	4	—	—	—	—	—	—	—	—	—
Petroleum Marketers, Inc.	137	2	—	—	—	—	—	—	—	—	—
Petroleum Products Corp.	57	2	—	—	—	—	—	—	—	—	47
Petroleum Sales & Services	40	1	—	—	—	—	—	—	40	—	—
Phillips 66 Co.	8,656	35	—	—	—	—	—	—	—	—	—
Pizza Motor Fuels Inc.	21	2	—	—	—	—	—	—	—	—	—
Pride Oil Co. (Mies.)	17	2	—	—	—	—	—	—	—	—	—
Private Brand Services, Inc.	1	1	—	—	—	—	—	—	—	—	—
Quality Oil Co. Inc., Ltd. Partnership	125	1	—	—	—	—	—	—	—	—	—
Racetrac Petroleum, Inc.	309	13	—	—	—	—	—	—	—	—	—
Red Hed Oil Co., Inc.	38	1	—	—	—	—	—	—	—	—	—
Reinsauer Petroleum Co.	7	1	—	—	—	—	—	—	—	7	—
Remote Services, Svc.	249	8	—	4	—	—	—	—	—	—	—
Reynolds Industries, Inc.	5	2	3	—	—	2	—	—	—	—	—
River Oil Co.	40	2	—	—	—	—	—	—	—	—	—
Roach Oil Co.	10	2	—	—	—	—	—	—	—	—	—
Royster Oil Co., Inc.	32	1	—	—	—	—	—	—	—	—	—
Santee Oil Co.	12	1	—	—	—	—	—	—	—	—	—
SCASO	40	1	—	—	—	—	—	40	—	—	—
Sears Oil Co., Inc.	11	1	—	—	—	—	—	—	11	—	—
Shelby Petroleum Corp.	20	2	—	—	—	—	—	—	—	—	—
Shell Oil Co.	9,763	40	—	12	—	228	55	135	264	278	99
Shotmeyer Bros. Petroleum Corp.	32	1	—	—	—	—	—	—	—	32	—
SICO	131	3	—	—	—	—	—	—	—	40	80
Simon Oil Co., Inc.	100	1	—	—	—	—	—	—	100	—	—
R.L. Smeltz Oil Co. Inc.	20	1	—	—	—	—	—	—	—	—	20
Smith-Shafer Oil Co.	5	1	—	—	—	—	—	—	—	—	—
SOS Oil Corp.	50	1	—	—	—	—	—	—	50	—	—
Southern Oil Co., Inc.	8	1	—	—	—	—	—	—	—	—	—
Southern States	103	6	—	—	—	—	—	—	—	—	—
The Spencer Co., Inc.	51	1	—	—	—	—	—	—	—	—	—
Star Oil Co.	22	1	—	—	—	—	—	—	—	—	—
Stevens Oil Co.	47	1	—	—	—	—	—	—	—	—	—
Sugarcreek Corp.	300	2	—	—	—	—	—	—	290	—	10

[illegible]

Branded Retail Outlets (cont'd)

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	New England						Middle Atlantic			
			Maine	N.H.	Vt.	Mass.	R.I.	Conn.	N.Y.	N.J.	Pa.	
Sumrail Oil Services, Inc.	8	1	—	—	—	—	—	—	—	—	—	—
Sun Refining & Marketing Co.	6,445	28	53	97	50	386	109	237	1,240	496	1,421	—
Sunshine Jr. Stores, Inc.	303	5	—	—	—	—	—	—	—	—	—	—
Taylor Oil Co.	55	2	—	—	—	—	—	—	—	—	—	—
Texaco Inc.	16,890	49	141	94	77	373	69	255	342	356	774	—
Thornhill Oil Co., Inc.	28	1	—	—	—	—	—	—	—	—	—	—
TOC Retail Inc., dba Majik Markets	341	11	—	—	—	—	—	—	—	—	—	—
Thornton Oil Corp.	96	6	—	—	—	—	—	4	—	—	—	—
Total Petroleum, Inc.	2,776	22	—	—	—	—	—	—	—	—	—	—
Trenton Oil Co., Inc.	31	1	—	—	—	—	—	—	—	31	—	—
Triton Incorporated	7	1	—	—	—	—	—	—	—	—	—	—
Ultra Power Corp.	12	1	—	—	—	—	—	—	12	—	—	—
United Refining Co.	324	3	—	—	—	—	—	—	173	—	134	—
Unocal Corp.	7,316	43	—	—	—	—	—	2	—	2	—	—
Viata Marketing Group Ltd.	16	4	—	—	—	—	—	—	—	—	—	—
Waco Oil Co., Inc.	16	2	—	—	—	—	—	—	—	—	—	—
Wake Up Oil Co., Inc.	38	1	—	—	—	—	—	—	—	—	—	—
Warren Equities, Inc.	268	9	11	8	—	63	54	59	42	21	10	—
WAWAHO Oil Co.	98	5	—	—	—	—	—	—	—	—	—	—
Wesson, Inc.	40	1	—	—	—	—	—	40	—	—	—	—
A.T. Williams Oil Co.	91	2	—	—	—	—	—	—	—	—	—	—
J.H. Williams Oil Co., Inc.	80	1	—	—	—	—	—	—	—	—	—	—
The Wills Group, Inc.	130	3	—	—	—	—	—	—	—	—	—	—
Wooten Oil Co.	33	2	—	—	—	—	—	—	—	—	—	—
Wright Industries, Inc.	18	1	—	—	—	—	—	—	—	—	—	—
York Oil Co., Inc.	10	1	—	—	—	—	—	—	—	—	—	—

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	West North Central						
			Minn.	Iowa	Mo.	N.D.	S.D.	Neb.	Kan.
Ada Resources & Energy, Inc.	77	1	—	—	—	—	—	—	—
American Petrofina, Inc.	3,177	23	70	27	173	—	22	25	107
Amoco Corp.	9,909	31	476	380	405	171	173	139	205
ARCO	1,699	5	—	—	—	—	—	—	—
Arkansas Valley Petroleum	75	2	—	—	11	—	—	—	—
Armour Oil Co.	62	6	—	—	—	—	—	—	—
Ashland Oil Co., Inc.	1,800	18	160	8	3	1	5	—	—
BP America, Inc. (Ohio)	7,464	26	—	—	—	—	—	—	—
Bostick Brothers, Inc.	19	2	—	—	—	—	—	—	—
Brennan Petroleum Co.	1	1	—	—	—	—	—	—	—
Cenex	972	14	215	50	—	150	107	44	6
Chapman, Inc.	35	2	—	—	—	—	—	—	—
Chevron Corp.*	10,682	33	—	—	2	—	—	—	—
Circle K Corp.	898	23	—	—	—	—	—	—	—
Citgo Petroleum Corp.	8,483	42	19	18	186	—	—	2	39
Clark Oil & Refining Corp.	944	12	21	7	51	—	—	—	11
The Coastal Corp.	720	23	8	99	51	—	6	42	156
Como Oil Co.	30	1	30	—	—	—	—	—	—
Conoco Inc.	3,484	37	180	221	399	87	90	228	242
Cook & Cooley, Inc.	78	1	—	—	—	—	—	—	—
Curtis Oil Co.	18	3	—	—	—	—	—	—	—
Curtis Parker Oil Co., Inc.	17	1	—	—	—	—	—	—	—
Dairy Mart Convenience Stores, Inc.	430	15	—	1	—	—	—	—	—
Diamond Shamrock Refining & Marketing Co.	1,947	8	—	—	4	—	—	—	21
Emro Marketing Co.	1,665	16	—	—	—	—	—	—	—
Exxon Co., U.S.A.	12,091	38	—	—	1	—	11	—	—
FKG Oil Co.	50	6	2	—	2	—	—	—	—
Fleetman Inc.	310	5	—	—	—	—	—	—	—

*Excludes Airport and Marine Outlets, New Car Dealerships, and Military Exchanges.

**Does not include Unocal's Unocal joint venture.

South Atlantic									East North Central						East South Central			
Del.	Md.	D.C.	Va.	W.Va.	N.C.	S.C.	Ga.	Fla.	Ohio	Ind.	Ill.	Mich.	Wis.	Ky.	Tenn.	Ala.	Miss.	
23	103	7	21	83	91	5	—	—	518	189	264	306	4	98	—	—	8	
—	—	—	10	—	45	—	18	162	—	—	—	—	—	—	—	88	35	
66	253	9	579	47	915	454	710	786	2	0	33	0	4	52	536	568	431	
—	—	—	2	1	22	30	42	129	—	28	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	11	13	16	—	—	10	36	27	8	
—	—	—	—	—	—	—	—	—	13	1	31	507	70	45	19	—	2	
—	—	—	—	—	—	—	7	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	8	—	338	—	742	256	609	701	17	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	4	—	7	—	386	677	344	
—	—	—	—	—	—	—	—	—	4	38	—	—	—	12	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	8	—	3	67	—	—	—	—	—	—	
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	41	—	50	—	—	80	—	—	—	—	—	—	—	—	—	
5	123	—	2	—	32	1	—	—	—	—	—	—	—	—	—	—	—	
—	—	—	10	—	—	—	—	—	—	—	18	—	—	—	—	—	—	

[illegible]

Branded Retail Outlets (cont'd.)

Company	TOTAL BRANDED RETAIL OUTLETS	NUMBER OF STATES WHERE GASOLINE BRAND IS MARKETED	West North Central						
			Minn.	Iowa	Mo.	N.D.	S.D.	Neb.	Kan.
Flying J Inc.	115	23	—	1	1	8	—	4	—
Friends Convenience Store	44	1	—	—	—	—	—	—	—
Gasco Gasoline, Inc.	42	1	—	—	—	—	—	—	—
General Oil Co.	30	1	—	—	—	—	—	—	—
Giant Industries, Inc.	27	3	—	—	—	—	—	—	—
Harris Enterprises Inc.	26	2	—	—	—	—	—	—	—
Hawaiian Independent Refinery Inc.	25	1	—	—	—	—	—	—	—
Highway Oil, Inc.	208	22	—	1	13	—	4	—	20
Harney Holland Oil Co.	90	1	—	—	—	—	—	—	—
Horkey Oil Co., Inc.	41	1	—	—	—	—	—	—	—
Horn Distributing Co., Inc.	28	1	—	—	—	—	—	—	—
Hucks Convenience Stores	100	5	—	—	1	—	—	—	—
Hudson Oil Co.	11	2	—	—	—	—	—	—	—
JS&J Service Inc.	3	2	—	—	—	—	—	—	—
Kent Distributors, Inc.	18	1	—	—	—	—	—	—	—
Kerr-McGee Refining Corp.	1,786	20	27	126	153	5	31	100	141
Krause Gentle Corp.	137	6	—	103	4	7	—	—	—
Kwik Shop, Inc.	210	5	—	66	—	—	—	48	63
Merritt Truax, Inc.	41	1	—	—	—	—	—	—	—
Mid-Missouri Oil Co.	15	1	—	—	15	—	—	—	—
Mini Mart Inc.	29	4	—	—	—	—	—	4	—
Missouri Terminal Oil Co.	30	1	—	—	30	—	—	—	—
Mobil Oil Corp.	9,486	33	303	0	95	19	0	0	0
Murphy Oil USA, Inc.	629	12	60	—	—	—	—	—	—
Muskat Corp.	123	6	—	—	—	—	—	—	18
Neal, Inc.	28	1	—	—	—	—	—	—	—
Nella Oil Co.	27	2	—	—	—	—	—	—	—
Newall Oil Co.	15	1	—	—	—	—	—	—	—
Olympian Oil Co.	40	1	—	—	—	—	—	—	—
Pacific Northern Oil Co.	60	1	—	—	—	—	—	—	—
PDO Food Stores, Inc.	69	4	15	—	—	—	—	—	—
Peavey Oil Co.	9	1	—	—	—	—	—	—	—
Phillips 66 Co.	8,658	35	404	358	634	—	89	253	329
Piasa Motor Fuels Inc.	21	2	—	—	2	—	—	—	—
Promana, Inc.	25	1	—	—	—	—	—	—	—
Pride of Texas Dist. Co.	41	1	—	—	—	—	—	—	—
Purify Oil Co.	16	1	—	—	—	—	—	—	—
Racetrac Petroleum, Inc.	309	13	—	—	1	—	—	—	—
Remote Services, Inc.	249	6	—	1	—	—	—	—	—
Republic Oil Corp.	5	1	—	—	—	—	—	—	—
Robinson Oil Co., Inc.	25	1	—	—	—	—	—	—	—
Sahara Oil Co., Inc.	21	1	—	—	—	—	—	—	—
Shay Oil Co., Inc.	20	1	—	—	—	—	—	—	—
Shell Oil Co.	9,763	40	—	14	188	—	—	—	—
Southern Counties Oil Co.	90	1	—	—	—	—	—	—	—
Sun Refining & Marketing Co.	6,445	28	—	189	145	—	—	3	2
Sunshine Jr. Stores, Inc.	303	5	—	—	—	—	—	—	—
Texaco Inc.	16,890	49	187	197	377	1	78	186	211
Thornton Oil Corp.	98	6	—	—	—	—	—	—	—
Thrifty Oil Corp.	155	1	—	—	—	—	—	—	—
T.J. Terminals Corp.	2	1	—	—	—	—	—	—	2
Time Saver Stores	115	1	—	—	—	—	—	—	—
TOC Retail Inc. dba Majik Markets	341	11	—	—	—	—	—	—	—
Tooley Oil Co.	7	1	—	—	—	—	—	—	—
Total Petroleum, Inc.	2,778	22	117	120	447	3	30	158	482
Ultramar, Inc.	350	1	—	—	—	—	—	—	—
Unocal Corp.*	7,316	43	—	30	—	—	—	—	1
V-1 Oil Co.	26	5	—	—	—	—	—	—	—
Vista Marketing Group Ltd.	16	4	—	1	4	—	—	—	—
Warelubco, Inc.	98	5	—	16	2	—	—	—	—
Webster Oil Co.	23	1	—	—	23	—	—	—	—

*Does not include Unocal's Unovan joint venture.

[illegible]

Average Number of Employees

(As of Jan. 1, 1989)

	Mining	Refining		Transportation		Wholesale	Retail	
	Oil and Gas Extraction	Petroleum Refining	Oil and Greases	Pipeline, Except Gas	Gas Distribution	Petroleum Products	Gasoline Stations	Total Industry
Alabama	1,489	402	115	85	3,197	5,483	8,224	18,995
Alaska	5,520	94	0	930	225	566	1,038	11,471
Arizona	126	14	9	120	1,841	1,391	8,881	12,382
Arkansas	2,598	N/A	N/A	N/A	2,185	2,805	5,549	13,137
California	33,208	24,820	876	961	11,120	14,851	62,828	148,486
Colorado	14,020	581	52	73	1,981	2,246	8,552	27,505
Connecticut	131	N/A	55	N/A	1,337	1,748	9,162	12,443
Delaware	11	797	10	4	311	267	1,504	2,904
D.C.	59	54	0	0	632	160	865	1,770
Florida	692	37	247	84	2,187	6,809	30,006	40,042
Georgia	69	N/A	148	464	4,355	6,196	17,578	28,810
Hawaii	N/A	433	0	0	350	622	3,547	4,962
Idaho	36	0	0	16	327	1,414	3,171	4,964
Illinois	3,785	8,275	1,291	921	7,819	10,059	27,022	59,172
Indiana	535	2,292	325	396	2,884	3,314	18,173	27,919
Iowa	15	1	55	150	1,094	3,220	13,193	17,728
Kansas	9,027	2,059	370	1,863	2,783	2,444	9,350	27,896
Kentucky	2,149	3,735	135	139	3,525	3,072	10,706	23,461
Louisiana	54,000	10,300	600	1,100	6,000	5,000	7,200	84,200
Maine	N/A	0	0	N/A	N/A	1,368	3,559	4,927
Maryland	32	27	353	0	1,132	2,775	13,683	18,002
Massachusetts	54	N/A	409	N/A	5,116	2,643	15,908	24,130
Michigan	4,534	1,754	793	281	6,572	6,531	24,110	44,575
Minnesota	164	N/A	167	207	2,192	2,842	17,249	22,821
Mississippi	5,655	1,606	133	228	2,151	3,053	6,186	19,012
Missouri	78	N/A	374	223	4,461	6,396	19,886	31,418
Montana	1,938	766	0	76	279	1,289	3,218	7,546
Nebraska	595	N/A	N/A	98	1,719	2,282	6,900	11,594
Nevada	243	23	0	23	778	464	4,104	5,635
New Hampshire	0	0	1	3	268	462	2,916	3,650
New Jersey	88	6,350	811	153	2,352	3,941	18,554	32,249
New Mexico	9,200	642	34	354	2,903	2,323	4,364	19,820
New York	1,729	5,425	410	126	6,631	8,652	27,466	50,439
North Carolina	20	0	246	114	2,753	6,053	11,829	21,015
North Dakota	2,747	220	133	154	1,026	2,185	2,346	8,811
Ohio	6,498	5,631	836	693	7,424	6,837	31,874	59,763
Oklahoma	42,251	6,533	415	1,341	5,278	4,686	7,847	66,153
Oregon	64	88	N/A	20	N/A	2,638	9,148	11,958
Pennsylvania	3,800	8,200	800	700	8,300	10,100	27,700	59,600
Rhode Island	6	N/A	N/A	N/A	934	453	2,436	3,829
South Carolina	26	N/A	N/A	N/A	563	3,953	7,950	12,492
South Dakota	111	0	0	66	128	1,574	2,709	4,588
Tennessee	332	373	73	41	1,808	5,420	11,616	19,863
Texas	174,959	26,245	1,159	4,888	27,426	22,765	33,702	291,146
Utah	2,023	788	24	77	2,279	1,125	5,562	11,878
Vermont	N/A	N/A	N/A	N/A	106	434	2,223	2,763
Virginia	301	257	65	78	3,036	8,417	15,598	27,752
Washington	204	1,617	N/A	85	N/A	2,702	10,686	15,294
West Virginia	4,336	403	181	92	4,836	1,431	5,052	16,331
Wisconsin	N/A	N/A	55	180	2,745	3,719	17,044	23,743
Wyoming	9,191	918	11	238	1,040	995	3,027	15,420
Total	401,748	121,770	11,783	17,825	160,391	201,957	622,799	1,538,274

Note: Data differ from the Bureau of Labor Statistics national averages to confidentiality rules.
Source: Various government agencies.

How Distillates Were Used in 1988

(Add 000 gal.)

Use	1988	1987	% Change	% Share of Total Distillates Use in 1988	% Share of Total Distillates Use in 1987
Residential . . .	7,662,046	7,426,412	3.2%	16.0%	16.3%
Commercial . . .	4,135,079	4,279,375	(3.4)	8.6	9.6
Industrial	2,617,639	2,917,624	(10.3)	5.5	6.0
Oil Company . . .	872,133	881,729	(1.1)	1.8	1.9
Farm	3,420,671	3,241,968	5.5	7.1	7.6
Elec. Utils. . . .	800,085	646,073	23.8	1.7	1.4
Railroad	3,259,250	3,147,661	3.5	6.8	6.9
Vessel					
Bunkering . . .	2,310,367	2,223,258	3.9	4.8	4.6
On-Highway					
Diesel	20,038,691	18,172,934	10.3	41.8	40.1
Military	980,877	884,392	11.0	2.0	1.7
Off-Highway					
Diesel	1,821,819	1,732,106	5.2	3.8	3.8
All other	66,763	75,815	(12.0)	0.1	0.2
U.S. Total . . .	47,985,420	45,629,346	5.2	—	—

Source: Energy Information Administration, Petroleum Marketing Monthly, June 1989.

How Residual Was Used in 1988

(Add 000 gal.)

Use	1988	1987	% Change	% Share of Total Residual Use in 1988	% Share of Total Residual Use in 1987
Commercial . . .	1,788,728	1,764,531	1.4%	8.4%	7.6%
Industrial	3,855,070	3,810,345	1.2	18.2	20.7
Oil Company . . .	433,294	502,615	(14.0)	2.0	2.5
Elec. Utils. . . .	9,540,878	7,631,898	(25.0)	45.0	41.6
Railroad	33	294	(88.8)	—	—
Vessel					
Bunkering . . .	5,248,981	5,295,272	(0.9)	24.8	24.3
Military	137,287	191,045	(28.3)	0.6	0.8
All other	175,279	223,168	(21.5)	0.8	1.4
U.S. Total . . .	21,179,550	19,383,168	9.3	—	—

Source: Energy Information Administration, Petroleum Marketing Monthly, June 1989.

How Kerosine Was Used in 1988

(Add 000 gal.)

Use	1988	1987	% Change	% Share of Total Kerosine Use in 1988	% Share of Total Kerosine Use in 1987
Residential . . .	770,042	671,350	14.8%	53.1%	44.6%
Commercial . . .	306,584	267,437	15.0	21.2	20.4
Industrial	188,117	160,057	17.5	13.0	11.5
Farm	45,990	34,781	32.3	3.2	2.3
All other	167,583	315,900	(46.8)	11.6	22.2
U.S. Total . . .	1,449,504	1,478,316	(1.9)	—	—

Source: Energy Information Administration, Petroleum Marketing Monthly, June 1989.

How New Homes Are Heated

Region	New Homes Completed (Add 000)	Share of New Homes by Fuels and Percentages			
		Gas	Electric	Oil	Other
Northeast	188	45%	23%	30%	1%
Midwest	191	84	12	(*)	3
South	457	36	62	1	2
West	248	71	22	(*)	7
Total 1988 . . .	1,085	54%	37%	6%	3%
Total 1987 . . .	1,123	52%	40%	5%	3%

(*) Negligible

Source: Characteristics of New Housing Dept. of Commerce, Current Construction Reports, Characteristics, of New Housing.

Gas: Who Uses It for Heat

Region	% of Gas-Heated Homes to Total Gas-Using Homes	Consumers Added in 1988 (Add 000)		
		New Homes	Existing Homes	Total Added
New England	70.5%	23.7	19.7	43.4
Mid-Atlantic	66.5	82.7	47.0	129.7
East North Central	94.8	127.2	29.9	157.1
West North Central	97.5	49.1	7.4	56.5
South Atlantic	85.0	85.7	43.7	129.4
East South Central	94.0	14.0	4.8	18.8
West South Central	89.1	30.7	2.3	33.0
Mountain	95.5	40.6	6.6	47.2
Pacific	95.5	248.3	23.9	272.2
Total	88.0%	702.0	185.2	887.2
% Change '88 vs. '87	—	3.2%	19.9%	1.0%

Source: American Gas Assn., House Heating Survey 1988, Table #3.

Gas Heat Equipment Shipments

Class and Type of Equipment	1989	1988	% Change
Central Heating:			
Furnaces	2,162,185	2,092,165	3.3%
Boilers	191,803	211,320	(9.2)
Space Heating:			
Wall Furnaces Vented	173,410	173,200	0.1
RV Systems	NA	235,518	NA
Water Heaters:			
Gas	4,130,469	3,956,469	4.4
Electric	3,369,108	3,333,490	1.1
Oil (a)	36,000	34,000	5.9

(a) Estimated by fuel oil industry sources for comparison.

Source: Gas Appliance Manufacturers Assn.

Distillate Deliveries in 1987...

(Add 000 gal.)

Destination	Residential		Commercial		Industrial	
	1988	1987	1988	1987	1988	1987
PAD District 1						
New England States						
Connecticut	551,570	487,757	126,954	131,751	41,539	53,835
Maine	250,661	229,415	75,085	62,311	25,728	20,677
Massachusetts	778,311	780,180	267,161	255,013	81,932	144,029
New Hampshire	155,027	165,599	48,426	70,359	12,381	11,542
Rhode Island	151,241	134,202	33,914	37,406	9,660	21,208
Vermont	81,504	78,813	29,000	27,382	8,010	7,615
Central Atlantic States						
Delaware	58,492	56,317	16,393	15,196	8,396	8,024
District of Columbia	12,392	17,187	22,978	27,269	41	319
Maryland	248,603	231,865	78,171	81,249	28,327	25,500
New Jersey	733,996	732,455	331,693	327,048	84,121	82,160
New York	1,529,357	1,521,225	618,101	620,814	55,117	71,588
Pennsylvania	830,514	800,822	234,527	237,251	193,592	212,659
Lower Atlantic States						
Florida	21,929	30,240	139,057	162,109	34,013	57,029
Georgia	10,821	14,393	50,504	42,160	36,948	42,447
North Carolina	240,830	238,714	129,619	123,234	81,008	83,480
South Carolina	47,027	58,813	44,277	36,463	21,804	19,171
Virginia	292,714	278,832	109,142	109,206	77,482	82,046
West Virginia	24,079	26,618	15,011	18,922	82,313	72,406
Total	6,019,068	5,883,446	2,370,013	2,385,143	882,413	1,015,737
PAD District 2						
Illinois	89,088	80,088	82,151	89,207	72,447	156,101
Indiana	117,319	115,985	58,174	58,820	71,576	129,888
Iowa	46,844	51,164	28,766	31,893	19,781	16,987
Kansas	1,254	897	16,178	11,391	14,194	18,973
Kentucky	37,255	31,939	40,976	22,393	152,600	154,523
Michigan	244,362	219,002	102,033	73,364	78,573	54,714
Minnesota	183,729	163,249	46,264	42,344	41,621	34,655
Missouri	26,635	27,478	69,849	77,984	38,594	36,968
Nebraska	8,355	8,467	12,554	14,868	5,116	4,107
North Dakota	40,530	37,803	6,467	10,166	12,640	9,518
Ohio	195,507	174,803	93,700	88,873	106,464	111,988
Oklahoma	1,172	418	26,213	17,136	24,679	21,875
South Dakota	38,625	35,955	14,495	17,378	8,409	5,119
Tennessee	9,476	9,578	46,311	48,757	42,657	42,537
Wisconsin	273,650	242,832	75,758	75,446	29,508	25,829
Total	1,313,802	1,199,459	717,889	658,821	715,861	823,790
PAD District 3						
Alabama	1,773	1,252	47,236	48,271	88,349	89,473
Arkansas	55	65	10,684	15,094	20,300	22,016
Louisiana	99	79	54,428	78,948	36,289	50,978
Mississippi	180	669	25,175	33,410	34,130	24,766
New Mexico	514	533	23,573	29,700	71,161	100,920
Texas	1,334	3,441	234,553	343,872	184,732	210,129
Total	3,956	6,038	395,553	549,295	434,962	498,282
PAD District 4						
Colorado	2,221	2,481	42,770	40,252	45,199	20,577
Idaho	25,838	24,134	18,114	17,741	20,019	17,846
Montana	9,850	10,364	8,361	12,817	18,124	21,278
Utah	5,520	4,254	29,284	30,925	40,870	32,639
Wyoming	1,293	1,390	11,315	11,472	47,885	50,001
Total	44,722	42,623	109,842	113,207	171,227	142,342
PAD District 5						
Alaska	53,971	67,769	36,760	44,289	27,629	6,805
Arizona	264	814	20,391	22,266	37,327	38,623
California	9,380	11,983	265,230	289,047	215,198	274,630
Hawaii	74	35	25,357	20,297	4,738	4,832
Nevada	12,216	13,652	19,107	30,003	57,528	35,521
Oregon	77,372	73,365	63,832	68,111	29,093	32,295
Washington	127,023	127,228	111,008	97,895	38,595	44,765
Total	280,499	294,846	541,685	571,909	410,107	437,472
U.S. Total	7,662,046	7,426,412	4,135,079	4,279,375	2,617,639	2,917,624

...By End Use

(Add 000 gal.)

N.B.: In 1985, EIA began publishing two sets of product tables, one for sales, the other for deliveries. Both are based on the same raw data. The sales tables reflect the questionnaire totals; the deliveries table are adjustments to correlate them with other industry data. EIA's original objective was to switch to the sales tables and drop the deliveries tables. However, because of statistical disparities, this switch-over has been delayed indefinitely. The data on these pages are the deliveries tables and are compatible with prior NPN Factbook summaries even though the latter were then labelled "sales".

	Oil Company		Farm		Electric Utility	
	1988	1987	1988	1987	1988	1987
PAD District 1						
New England States						
Connecticut	240	2,053	1,905	2,513	2,405	730
Maine	11	141	6,112	3,930	606	1,847
Massachusetts	853	771	2,447	2,457	22,055	11,951
New Hampshire	63	21	2,303	1,596	1,233	1,124
Rhode Island	300	269	232	144	2,164	756
Vermont	25	74	8,679	7,579	1,908	2,374
Central Atlantic States						
Delaware	380	631	6,477	6,111	6,261	14,956
District of Columbia	—	—	—	—	71,720	34,230
Maryland	843	1,198	24,984	21,196	16,697	31,557
New Jersey	4,946	1,351	16,849	17,706	33,155	16,700
New York	7,506	5,366	50,739	42,021	81,982	43,499
Pennsylvania	14,121	17,119	33,615	53,781	60,890	53,043
Lower Atlantic States						
Florida	938	785	83,471	81,896	56,055	45,995
Georgia	156	398	66,123	69,287	12,510	5,382
North Carolina	22	454	43,810	38,153	18,434	18,118
South Carolina	692	991	21,478	19,480	8,692	7,437
Virginia	1,191	1,569	29,428	31,598	17,231	16,091
West Virginia	2,873	7,497	5,091	5,888	6,316	12,448
Total	35,160	40,688	403,743	406,337	420,314	318,039
PAD District 2						
Illinois	7,540	13,180	189,073	172,477	29,615	28,744
Indiana	1,289	888	85,050	90,390	19,048	18,922
Iowa	55	361	175,843	175,766	8,624	4,316
Kansas	7,730	6,881	146,670	132,207	6,280	2,616
Kentucky	574	603	44,062	50,880	8,740	10,033
Michigan	3,878	2,138	75,242	73,910	34,125	29,466
Minnesota	512	333	154,086	144,185	8,439	8,840
Missouri	465	540	75,031	57,913	9,594	11,601
Nebraska	458	631	159,059	140,097	847	2,418
North Dakota	2,686	6,089	82,674	86,566	1,999	1,713
Ohio	7,547	10,341	75,940	70,863	20,205	23,368
Oklahoma	23,790	25,779	51,635	41,092	66	177
South Dakota	11	13	91,500	83,315	1,265	74
Tennessee	984	911	37,538	38,275	2,842	4,046
Wisconsin	724	332	82,121	77,084	9,551	2,344
Total	58,243	69,020	1,525,354	1,434,999	161,038	146,680
PAD District 3						
Alabama	2,159	3,304	37,124	43,392	7,208	8,530
Arkansas	1,160	4,103	153,512	137,183	11,103	10,946
Louisiana	301,589	264,374	177,694	179,567	13,349	6,506
Mississippi	40,260	40,164	122,241	124,457	4,361	1,105
New Mexico	16,701	16,542	26,954	28,544	387	1,317
Texas	309,844	340,970	387,089	318,182	35,245	34,322
Total	671,714	859,459	904,614	831,305	71,653	62,726
PAD District 4						
Colorado	4,329	5,012	62,193	57,527	3,088	4,341
Idaho	83	97	66,078	63,953	48	206
Montana	1,032	1,735	37,452	39,971	1,043	1,549
Utah	1,555	3,571	16,783	11,302	4,386	8,849
Wyoming	13,434	20,435	10,187	13,394	5,931	4,630
Total	20,442	30,850	192,693	186,146	14,497	19,577
PAD District 5						
Alaska	42,770	9,312	358	76	34,863	25,736
Arizona	231	173	22,433	28,016	4,993	3,581
California	40,105	56,670	254,767	233,467	28,521	12,191
Hawaii	1,782	3,286	18,509	20,187	60,862	54,577
Nevada	165	653	8,360	6,304	1,768	1,415
Oregon	620	597	49,234	44,260	467	95
Washington	900	1,023	40,608	50,871	1,110	1,456
Total	86,573	71,714	594,267	383,181	132,584	99,052
U.S. Total	872,133	881,729	3,420,671	3,241,968	800,085	646,073

Distillate Deliveries 1988...

(Add 000 gal.)

Destination	Railroad		Vessel Bunkering		On-Highway	
	1988	1987	1988	1987	1988	1987
PAD District 1						
New England States						
Connecticut	148	176	6,717	1,669	212,589	188,172
Maine	9,209	8,847	9,216	2,611	175,344	157,344
Massachusetts	5,786	4,202	28,320	49,710	293,007	282,982
New Hampshire	147	168	513	764	58,051	54,975
Rhode Island	353	88	1,173	2,125	43,741	55,520
Vermont	3,266	2,719	352	320	53,918	50,607
Central Atlantic States						
Delaware	1,754	90	3,663	5,713	55,412	58,756
District of Columbia	4,124	402	34	29	23,033	21,822
Maryland	32,461	30,052	8,129	9,355	299,521	289,433
New Jersey	51,938	37,882	131,351	120,272	477,858	446,805
New York	37,347	31,033	10,926	35,488	713,826	633,543
Pennsylvania	86,371	72,994	25,185	32,523	928,175	868,850
Lower Atlantic States						
Florida	98,562	120,725	105,463	125,796	832,093	654,444
Georgia	86,978	88,701	24,757	9,210	831,267	772,080
North Carolina	54,875	57,175	8,625	9,493	711,035	580,195
South Carolina	37,173	38,296	8,945	15,699	310,365	282,618
Virginia	123,612	117,060	52,397	38,282	532,848	501,785
West Virginia	12,668	12,284	44,799	47,194	160,141	150,200
Total	646,772	623,197	470,566	506,253	6,712,224	6,049,931
PAD District 2						
Illinois	91,107	117,558	25,426	19,633	771,386	724,982
Indiana	194,874	185,655	10,966	12,014	628,847	598,704
Iowa	37,483	42,189	1,600	1,222	333,931	322,228
Kansas	151,350	148,252	—	—	331,926	351,717
Kentucky	122,547	122,088	85,058	85,396	512,517	356,046
Michigan	43,557	51,430	10,373	3,934	526,217	511,402
Minnesota	42,984	40,827	1,165	1,431	331,701	313,253
Missouri	35,426	30,314	46,860	38,663	535,424	487,063
Nebraska	162,856	126,525	—	217,014	201,014	201,014
North Dakota	39,863	37,165	—	89,673	89,673	89,673
Ohio	151,825	136,386	4,210	1,852	861,428	751,521
Oklahoma	68,814	55,498	369	1,523	394,165	363,820
South Dakota	1,767	1,694	—	—	91,906	89,852
Tennessee	93,724	89,033	103,212	82,357	578,829	562,036
Wisconsin	61,036	39,166	5,828	8,029	440,836	384,232
Total	1,296,994	1,223,759	295,067	256,613	6,445,900	6,228,136
PAD District 3						
Alabama	68,615	69,164	65,291	66,895	480,340	404,744
Arkansas	21,825	29,116	257	721	346,026	322,040
Louisiana	73,523	68,469	504,804	418,116	383,054	344,059
Mississippi	15,565	12,438	105,086	64,719	302,361	289,999
New Mexico	46,652	49,472	—	—	204,734	189,499
Texas	373,144	352,146	274,752	345,293	1,296,067	1,319,054
Total	597,323	580,804	950,190	895,743	3,012,582	2,869,395
PAD District 4						
Colorado	70,093	60,226	81	—	186,922	184,224
Idaho	23,782	20,0524	—	97	99,626	102,578
Montana	59,640	67,173	81	—	115,890	106,998
Utah	35,188	34,532	—	—	149,108	140,894
Wyoming	111,908	58,856	—	—	171,874	181,974
Total	300,702	236,811	—	97	725,429	716,668
PAD District 5						
Alaska	3,042	3,926	63,341	71,125	83,235	61,624
Arizona	23,781	37,439	—	—	299,981	269,026
California	194,446	237,239	370,162	301,011	1,760,085	1,256,749
Hawaii	19	39	60,545	39,061	21,935	20,219
Nevada	29,855	38,042	—	—	118,022	119,411
Oregon	91,261	103,546	33,063	35,403	302,381	269,015
Washington	75,056	60,857	67,352	117,752	357,017	314,460
Total	417,459	481,090	594,463	564,352	2,942,656	2,310,504
U.S. Total	3,259,250	3,147,661	2,310,367	2,223,258	20,038,691	18,172,934

...By End Use (Continued)

(Add 000 gal.)

Destination	Military		Off-Highway		All Other		Total	
	1988	1987	1988	1987	1988	1987	1988	1987
PAD District 1								
New England States								
Connecticut	1,305	3,906	12,010	11,894	281	976	957,661	885,432
Maine	2,304	1,825	20,028	13,662	—	138	574,305	502,548
Massachusetts	3,850	5,603	17,627	14,873	66	189	1,501,415	1,551,961
New Hampshire	75	946	6,110	9,256	—	7	284,329	313,658
Rhode Island	5,682	1,027	999	1,085	185	80	249,646	253,910
Vermont	620	736	7,404	4,544	142	136	194,829	182,901
Central Atlantic States								
Delaware	33	1,242	3,384	2,948	94	—	160,738	169,983
District of Columbia	8,836	10,618	81	165	—	13	143,240	112,055
Maryland	3,930	13,528	15,272	17,940	2,710	4,012	759,648	756,885
New Jersey	6,008	8,370	28,363	22,854	32	524	1,900,310	1,814,128
New York	12,611	3,807	41,963	41,920	263	475	3,159,737	3,051,777
Pennsylvania	4,653	22,535	45,595	38,908	187	1,294	2,457,425	2,411,580
Lower Atlantic States								
Florida	28,773	32,760	56,154	71,958	1,489	591	1,457,996	1,384,330
Georgia	12,085	9,868	35,397	33,482	4,165	4,886	1,171,711	1,092,293
North Carolina	4,308	4,938	28,443	32,484	2,780	5,343	1,323,790	1,191,782
South Carolina	3,221	2,449	24,928	16,671	1,277	2,272	529,879	500,360
Virginia	80,442	25,011	53,024	28,440	2,112	3,231	1,371,623	1,233,151
West Virginia	498	336	18,285	20,510	26	—	372,102	374,302
Total	179,235	149,504	415,066	383,592	15,811	24,169	18,570,384	17,786,034
PAD District 2								
Illinois	1,879	863	56,630	59,567	3,544	1,873	1,419,887	1,444,273
Indiana	4,031	4,571	17,954	13,395	3,198	4,340	1,210,126	1,333,373
Iowa	110	310	17,335	13,173	2,848	1,883	873,021	861,491
Kansas	1,947	3,670	17,127	21,062	1,518	1,368	896,175	899,033
Kentucky	10,793	5,971	21,276	21,543	719	1,598	1,037,117	862,991
Michigan	3,222	8,150	49,716	45,303	2,192	3,031	1,173,490	1,075,846
Minnesota	2,704	2,404	23,638	17,221	2,122	2,935	838,945	789,890
Missouri	6,309	6,879	37,120	33,224	6,791	3,602	888,098	812,428
Nebraska	1,423	1,260	18,094	17,881	—	241	585,578	517,588
North Dakota	2,505	2,512	5,470	5,582	76	390	284,583	286,029
Ohio	9,006	9,808	27,752	28,130	358	1,375	1,553,942	1,409,305
Oklahoma	2,412	2,045	28,108	29,677	4,616	4,616	824,037	583,655
South Dakota	730	2,098	11,884	11,838	336	265	260,730	247,601
Tennessee	1,054	1,552	59,940	63,348	1,236	1,033	977,804	843,467
Wisconsin	2,626	1,210	22,398	22,425	11,284	4,475	1,015,329	883,384
Total	50,752	53,304	414,244	403,348	40,619	33,025	13,238,862	12,330,154
PAD District 3								
Alabama	4,853	6,712	53,110	49,742	3,578	1,711	857,636	793,189
Arkansas	2,467	1,759	30,943	31,618	2,793	866	601,125	575,527
Louisiana	20,955	62,644	74,854	66,459	297	2,331	1,640,937	1,542,530
Mississippi	116,607	68,112	33,755	41,235	880	1,690	800,602	702,763
New Mexico	1,882	6,933	35,167	22,965	0	138	427,725	446,563
Texas	260,820	222,093	277,203	232,075	1,232	2,067	3,636,015	3,723,624
Total	407,584	368,253	505,034	444,094	8,780	8,803	7,964,040	7,784,196
PAD District 4								
Colorado	8,482	11,582	43,196	28,248	33	326	470,526	414,806
Idaho	2,542	2,735	17,004	18,379	—	291	273,223	268,385
Montana	480	435	11,171	12,565	213	145	263,266	275,031
Utah	3,797	1,314	21,284	16,630	—	338	307,776	285,248
Wyoming	283	459	22,388	22,860	165	4,726	395,953	268,198
Total	15,584	18,537	115,045	86,682	410	5,827	1,710,744	1,611,668
PAD District 5								
Alaska	17,561	27,611	13,855	25,802	40	227	377,423	344,301
Arizona	1,324	1,422	25,285	35,560	—	93	436,010	437,012
California	221,645	233,580	208,735	201,486	811	1,639	3,569,284	3,109,692
Hawaii	54,672	13,312	7,227	4,288	—	—	255,720	180,134
Nevada	4,928	1,967	32,792	25,818	33	458	284,773	273,244
Oregon	1,390	3,256	43,412	50,498	—	247	692,124	680,689
Washington	26,205	15,649	41,125	58,938	59	1,328	886,056	892,223
Total	327,723	296,795	372,431	402,390	943	3,992	6,501,390	5,917,296
U.S. Total	980,877	884,392	1,821,819	1,732,106	66,763	75,815	47,985,420	45,629,346

Source: Energy Information Administration, Petroleum Marketing Monthly, July 1989.

Deliveries of Kerosine in 1988...

(Add 000 gal.)

Destination	Residential		Commercial		Industrial	
	1988	1987	1988	1987	1988	1987
PAD District 1						
New England States						
Connecticut	7,811	9,778	1,288	2,685	4,842	553
Maine	15,219	15,166	3,091	994	344	69
Massachusetts	5,811	12,750	1,369	1,203	800	617
New Hampshire	8,488	9,692	846	877	135	523
Rhode Island	1,858	2,445	53	130	0	46
Vermont	5,967	6,034	1,231	793	866	17
Central Atlantic States						
Delaware	5,883	8,114	521	401	48	46
District of Columbia	164	257	83	13	5	23
Maryland	25,536	27,318	1,228	553	2,064	228
New Jersey	9,149	12,336	2,254	2,630	2,218	3,319
New York	80,759	77,279	4,023	7,645	14,520	954
Pennsylvania	56,638	51,713	8,158	7,880	4,418	5,315
Lower Atlantic States						
Florida	12,691	15,166	8,109	11,227	797	105
Georgia	3,989	3,125	411	815	717	296
North Carolina	79,124	77,210	4,985	3,307	3,597	3,905
South Carolina	24,839	27,767	503	1,267	2,166	1,940
Virginia	51,006	52,477	5,242	4,750	1,038	740
West Virginia	7,714	8,241	1,538	1,438	832	1,333
Total	402,647	416,867	44,933	48,609	39,406	20,027
PAD District 2						
Illinois	8,177	5,523	2,229	1,543	1,693	3,089
Indiana	19,572	14,902	2,960	1,828	2,782	3,750
Iowa	2,944	2,123	190	220	154	46
Kansas	759	887	361	567	69	94
Kentucky	24,333	16,457	5,409	2,478	5,924	4,194
Michigan	15,084	12,007	705	543	1,945	2,044
Minnesota	4,338	2,761	179	200	42	26
Missouri	2,195	1,970	614	231	224	52
Nebraska	608	485	73	159	37	2,370
North Dakota	294	210	41	42	0	—
Ohio	47,498	36,581	9,973	8,977	3,684	2,863
Oklahoma	941	805	1,616	194	219	1,102
South Dakota	516	544	9	24	5	1
Tennessee	23,642	16,651	9,127	4,683	1,425	2,599
Wisconsin	2,019	3,743	252	175	113	111
Total	152,921	119,451	33,738	19,864	18,317	22,341
PAD District 3						
Alabama	98,719	39,629	9,669	32,481	6,435	14,725
Arkansas	19,438	14,052	7,350	3,180	6,854	6,074
Louisiana	8,814	6,451	84,328	13,974	27,978	21,412
Mississippi	21,327	18,424	2,776	4,172	29,000	26,287
New Mexico	8,717	14,457	23,751	10,166	4,538	9,297
Texas	44,519	39,370	31,533	54,384	48,916	33,669
Total	201,534	132,382	159,407	118,356	123,720	111,463
PAD District 4						
Colorado	1,144	899	499	864	548	134
Idaho	257	213	46	91	10	8
Montana	50	44	1	1	0	—
Utah	223	287	170	579	460	65
Wyoming	54	71	139	73	115	118
Total	1,728	1,515	855	1,578	1,131	323
PAD District 5						
Alaska	192	11	10,965	65,325	7	5
Arizona	186	42	38	280	2,946	356
California	5,873	1,117	5,102	2,292	1,567	5,199
Hawaii	0	0	15	25	8	2
Nevada	975	275	486	52	115	148
Oregon	554	138	515	72	80	14
Washington	3,432	552	50,530	10,984	819	178
Total	11,212	2,135	67,651	79,029	5,543	5,902
U.S. Total	770,042	671,350	306,584	267,437	188,117	180,057

...By End Use

(Add 000 gal.)

N.B.: In 1985, EIA began publishing two sets of product tables, one for sales, the other for deliveries. Both are based on the same raw data. The sales tables reflect the questionnaire total; the deliveries table are adjustments to correlate them with other industry data. EIA's original objective was to switch to the sales tables and drop the deliveries tables. However, because of statistical disparities, this switch-over has been delayed indefinitely. The data on these pages are the deliveries tables and are compatible with prior NPN Factbook summaries even though the latter were then labelled "sales".

	Oil Company		Farm		Electric Utility	
	1988	1987	1988	1987	1988	1987
PAD District 1						
New England States						
Connecticut	10	15	93	306	14,044	13,937
Maine	365	412	366	449	19,365	17,091
Massachusetts	5	4	133	418	8,118	14,992
New Hampshire	27	15	46	98	9,541	11,205
Rhode Island	0	0	319	27	2,231	2,648
Vermont	730	543	37	226	8,831	7,612
Central Atlantic States						
Delaware	177	283	2	15	6,630	8,858
District of Columbia	—	—	29	27	281	320
Maryland	168	362	601	624	29,596	29,085
New Jersey	15	233	13,142	13,163	26,778	31,700
New York	1,884	1,381	916	12,770	102,102	100,030
Pennsylvania	848	2,595	1,578	2,698	71,640	70,200
Lower Atlantic States						
Florida	25	73	752	811	22,375	27,383
Georgia	870	784	547	277	6,534	5,297
North Carolina	2,617	2,170	2,847	1,509	93,171	88,101
South Carolina	462	608	811	1,113	28,782	32,695
Virginia	1,114	1,328	739	934	59,138	60,229
West Virginia	225	371	978	1,137	11,288	12,521
Total	9,542	11,178	23,936	37,222	520,464	533,904
PAD District 2						
Illinois	757	791	363	253	13,219	11,199
Indiana	672	768	878	944	26,864	22,193
Iowa	652	1,824	90	54	4,030	4,066
Kansas	288	645	103	661	1,580	2,654
Kentucky	1,065	722	131	110	36,862	23,962
Michigan	180	364	11	605	17,905	15,563
Minnesota	1,092	336	134	28	5,786	3,351
Missouri	161	341	528	86	3,722	2,680
Nebraska	318	306	1,830	521	2,865	3,840
North Dakota	78	24	148	1	560	278
Ohio	2,676	2,942	1,943	1,501	65,774	53,865
Oklahoma	389	155	174	82	3,339	2,339
South Dakota	162	133	36	4	729	706
Tennessee	286	76	3,227	867	37,708	24,876
Wisconsin	157	207	80	48	2,622	4,284
Total	8,911	9,434	9,678	5,784	223,666	178,854
PAD District 3						
Alabama	1,967	153	7,644	3,770	124,434	90,757
Arkansas	1,368	1,139	3,934	4,455	38,944	28,900
Louisiana	841	391	74,895	5,373	196,855	47,601
Mississippi	14,009	2,791	176	178	67,288	51,851
New Mexico	389	4,673	1,331	1,166	38,726	39,758
Texas	7,644	4,400	45,420	256,655	178,032	388,479
Total	26,219	13,547	133,400	271,598	544,280	647,346
PAD District 4						
Colorado	815	239	11	569	3,014	2,706
Idaho	22	9	4	2	338	292
Montana	86	210	0	2	137	258
Utah	31	38	14	—	898	969
Wyoming	21	30	29	62	559	354
Total	975	526	58	638	4,748	4,578
PAD District 5						
Alaska	—	—	18	0	11,182	65,341
Arizona	12	3	58	1	3,240	683
California	155	63	403	671	13,100	9,342
Hawaii	0	0	—	—	23	27
Nevada	29	2	14	2	1,620	480
Oregon	9	1	11	5	1,169	229
Washington	137	7	7	1	54,926	11,721
Total	343	76	511	690	85,260	87,822
U.S. Total	45,990	34,761	167,583	315,900	1,478,316	1,449,504

Residual Fuel Oil Deliveries in 1986...

(Add 000 gal.)

Destination	Commercial		Industrial		Oil Company		Electric Utility	
	1988	1987	1988	1987	1988	1987	1988	1987
PAD District 1								
New England States								
Connecticut	42,331	38,676	64,819	58,832	210	—	706,921	776,584
Maine	58,354	20,992	154,450	123,998	—	—	184,248	165,440
Massachusetts	106,355	84,667	113,447	212,160	—	—	1,219,964	1,318,023
New Hampshire	15,150	8,384	28,217	42,797	—	—	199,724	124,555
Rhode Island	19,242	15,103	19,664	24,845	—	—	30,750	31,645
Vermont	1,880	2,718	5,496	7,241	—	—	—	—
Central Atlantic States								
Delaware	5,514	4,931	21,542	22,959	13,245	4,802	131,732	97,930
District of Columbia	6,893	24,423	—	—	—	—	—	—
Maryland	22,317	54,307	30,198	22,337	2,699	1,503	214,869	180,516
New Jersey	88,596	70,965	158,008	179,640	5,405	1,370	565,072	319,839
New York	563,523	563,858	148,931	149,824	864	1,088	2,642,176	2,106,237
Pennsylvania	35,604	35,688	93,671	123,550	44,004	41,188	405,791	418,891
Lower Atlantic States								
Florida	65,351	60,201	123,738	52,888	148	16	1,610,455	1,175,781
Georgia	23,794	29,535	52,959	43,151	518	305	3,106	6,566
North Carolina	8,738	1,868	166,570	169,775	1,531	1,437	—	—
South Carolina	1,450	1,005	76,094	54,483	86	—	—	—
Virginia	12,529	29,434	88,195	83,272	548	—	133,724	210,172
West Virginia	5,364	109	12,837	12,997	1,395	2,947	—	—
Total	1,093,004	1,046,861	1,358,836	1,378,749	70,652	55,193	8,048,533	6,932,080
PAD District 2								
Illinois	26,349	40,298	80,448	80,351	54,890	39,879	88,120	133,635
Indiana	10,956	12,308	86,328	76,709	58,231	64,899	—	—
Iowa	898	785	10,837	4,046	—	—	—	—
Kansas	34	13	22,500	9,710	8,471	4,757	657	—
Kentucky	1,755	37	14,496	27,978	3,641	9,666	—	—
Michigan	8,760	5,938	87,920	78,214	10,087	10,834	84,750	28,588
Minnesota	13,494	5,700	32,289	38,002	11,588	9,313	18	—
Missouri	4,587	5,281	24,181	23,636	—	—	10,100	10,994
Nebraska	597	12	14,655	9,072	—	17	4,395	5,047
North Dakota	2,102	1,475	5,864	4,803	7,947	8,274	149	287
Ohio	3,590	2,185	95,190	72,490	11,186	11,896	18,924	2,876
Oklahoma	261	720	29,625	13,901	—	—	—	—
South Dakota	1,008	325	2,378	2,048	—	—	—	—
Tennessee	3,461	2,932	15,966	10,967	285	230	—	—
Wisconsin	11,278	5,115	32,297	42,699	6,092	4,345	—	—
Total	88,138	82,134	535,574	494,670	178,390	183,913	207,313	181,427
PAD District 3								
Alabama	239,051	162,819	228,899	232,027	7,646	7,972	—	—
Arkansas	—	—	74,254	112,818	—	—	5,737	156
Louisiana	72,608	113,758	953,765	895,919	5,101	15,614	9,319	814
Mississippi	5,470	9,666	227,266	27,073	—	—	46,542	5,781
New Mexico	—	—	26,452	24,033	—	168	1,430	546
Texas	186,691	227,900	198,385	339,009	6,670	46,577	8,132	869
Total	500,819	514,143	1,709,023	1,630,878	19,417	70,331	71,158	8,167
PAD District 4								
Colorado	—	—	1,001	8,860	—	—	51	—
Idaho	1,282	2,477	9,400	13,612	—	—	—	—
Montana	1,859	3,304	5,459	2,499	34,814	—	—	—
Utah	8,935	29,024	24,300	25,894	21,436	36,852	—	—
Wyoming	22,492	7,695	11,700	3,930	14,367	12,977	97	—
Total	34,368	42,480	51,860	55,895	70,617	49,829	148	—
PAD District 5								
Alaska	5,064	34,123	—	17,738	—	—	139	—
Arizona	15	—	512	304	—	—	1,110	333
California	13,463	16,483	70,687	110,579	72,778	142,937	673,885	61,948
Hawaii	53,758	22,334	2,234	2,875	14,606	13,814	500,191	433,360
Nevada	90	190	1,679	1,125	344	433	38,401	14,063
Oregon	5,417	3,819	25,357	27,001	902	418	—	—
Washington	3,596	954	99,510	91,332	5,588	5,749	—	520
Total	81,403	77,904	199,979	250,954	94,218	163,350	1,213,726	510,225
U.S. Total	1,788,728	1,764,531	3,855,070	3,810,345	433,294	502,615	9,540,878	7,631,898

...By End Use

N.B.: In 1985, EIA began publishing two sets of product tables, one for sales, the other for deliveries. Both are based on the same raw data. The sales tables reflect the questionnaire totals; the deliveries table are adjustments to correlate them with other industry data. EIA's original objective was to switch to the sales tables and drop the deliveries tables. However, because of statistical disparities, this switch-over has been delayed indefinitely. The data on these pages are the deliveries tables and are compatible with prior NPN Factbook summaries even though the latter were then labelled "sales".

Destination	Railroad		Vessel Bunkering		Military		All Other		Total	
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
PAD District 1										
New England States										
Connecticut	—	—	876	202	4,924	3,488	—	—	820,082	877,782
Maine	—	270	12,270	117	—	2,145	—	—	409,322	312,962
Massachusetts	—	—	16,311	9,098	5,785	4,484	—	—	1,461,862	1,628,432
New Hampshire	—	—	445	16	6,363	12,449	—	—	249,899	188,201
Rhode Island	—	—	4,501	242	6,758	8,676	—	—	80,914	80,511
Vermont	—	—	—	—	—	133	—	—	7,376	10,092
Central Atlantic States										
Delaware	—	—	25,630	28,315	—	1,498	—	—	197,663	160,336
District of Columbia	—	—	—	—	499	—	—	—	7,392	24,423
Maryland	—	—	62,820	31,580	23,654	42,371	—	—	356,558	332,613
New Jersey	—	—	220,204	286,705	6,920	7,441	60	886	1,044,265	866,845
New York	—	—	81,687	46,638	13,303	13,176	2,884	4,457	3,453,368	2,885,277
Pennsylvania	—	—	153,577	140,530	3,078	3,672	—	—	740,726	763,519
Lower Atlantic States										
Florida	—	—	235,237	199,984	9,476	51,075	173	102	2,044,577	1,540,047
Georgia	—	—	12,092	11,401	1,783	1,403	—	—	94,252	92,361
North Carolina	—	—	5,898	11,382	10,411	9,668	187	178	193,355	188,309
South Carolina	—	—	19,391	13,598	5,360	1,284	—	—	102,381	70,371
Virginia	—	20	77,609	59,559	7,149	15,578	—	0	319,753	398,572
West Virginia	—	—	—	—	—	—	—	—	19,596	16,054
Total	—	290	933,547	839,368	105,464	178,542	3,304	5,623	11,603,340	10,436,706
PAD District 2										
Illinois	—	—	15,351	4,461	155	—	40	—	265,353	296,464
Indiana	—	—	6,831	4,923	—	—	—	—	142,348	158,837
Iowa	—	—	—	—	—	438	—	—	11,735	5,272
Kansas	—	—	—	—	—	—	—	—	32,263	14,481
Kentucky	—	—	—	—	—	—	—	—	25,892	37,681
Michigan	—	—	1,315	1,319	—	1,144	—	42	192,832	126,079
Minnesota	11	—	306	174	—	—	190	195	57,895	53,385
Missouri	22	—	—	—	4,218	—	—	—	43,107	39,913
Nebraska	—	4	—	—	—	—	16	10	19,684	14,162
North Dakota	—	—	—	—	—	—	—	1,150	16,062	15,989
Ohio	—	—	524	1,339	—	—	—	—	129,416	90,798
Oklahoma	—	—	—	—	—	—	—	—	29,886	14,621
South Dakota	—	—	—	—	—	—	—	—	3,387	2,373
Tennessee	—	—	66	21	548	—	—	—	20,306	14,150
Wisconsin	—	—	200	—	—	—	—	—	49,857	52,158
Total	33	4	24,593	12,238	4,921	1,582	246	1,397	1,040,004	938,364
PAD District 3										
Alabama	—	—	74,707	54,842	28	579	—	—	550,331	458,240
Arkansas	—	—	—	—	—	—	—	—	79,991	112,973
Louisiana	—	—	847,838	800,830	4,264	—	12,636	17,428	1,905,531	1,844,363
Mississippi	—	—	64,215	67,230	—	—	—	—	343,492	109,750
New Mexico	—	—	—	—	—	—	—	—	27,882	24,747
Texas	—	—	807,866	724,019	—	—	146,745	186,224	1,351,488	1,524,599
Total	—	—	1,794,626	1,646,922	4,292	579	159,381	203,652	4,258,716	4,074,672
PAD District 4										
Colorado	—	—	—	—	—	—	—	—	1,051	8,860
Idaho	—	—	—	—	—	—	—	—	10,682	16,388
Montana	—	—	—	—	—	—	—	76	41,932	5,879
Utah	—	—	—	—	—	—	—	—	54,670	91,769
Wyoming	—	—	—	—	—	—	172	5,896	48,829	30,488
Total	—	—	—	—	—	—	172	5,972	157,164	153,364
PAD District 5										
Alaska	—	—	5,624	5,404	—	—	—	—	10,828	57,265
Arizona	—	—	—	—	—	—	—	—	1,636	637
California	—	—	1,878,459	2,186,577	7,162	4,934	—	—	2,716,435	2,523,458
Hawaii	—	—	63,078	48,618	3,191	1,163	12,083	6,484	649,142	528,648
Nevada	—	—	—	—	—	—	—	—	40,513	15,812
Oregon	—	—	169,417	148,752	236	2,630	13	—	201,342	182,620
Washington	—	—	379,637	371,393	12,021	1,615	78	39	500,430	471,602
Total	—	—	2,496,215	2,760,744	22,610	10,341	12,175	6,524	4,120,326	3,780,042
U.S. Total	33	294	5,248,981	5,259,272	137,287	191,045	175,279	223,168	21,179,550	19,383,168

Distillate Deliveries by Annual Uses

(Add 000 bbl.)

Year	Residential	Commercial	Industrial	Farm	Oil Company	Electric Utilities	Diesel	Other	Total
1988	182,430	98,454	62,325	81,445	20,785	19,050	520,488	157,554	1,142,511
1987	176,819	101,890	69,472	77,190	20,994	15,383	473,930	150,741	1,086,419
1986	173,686	102,217	63,907	80,477	17,857	14,628	467,280	143,688	1,063,740
1985	171,736	107,481	61,730	78,841	20,869	12,246	411,420	99,984	1,046,827
1984 (a)	164,529	116,729	56,113	70,819	21,623	16,405	439,786	139,173	1,041,217
1983 (a)	159,481	112,392	54,030	67,582	21,510	11,744	408,594	131,142	981,926
1982	180,760	75,669	71,340	68,453	29,482	12,134	375,124	164,253	974,864
1981	197,400	78,663	80,216	69,665	29,185	18,192	378,853	180,302	1,032,476

(a) In 1984, (as it did in 1979), Energy Information Administration revised some of its sampling procedures and adjusted some of the categories to reflect market volumes. Thus the 1984 and 1983 data are estimates and may not be truly comparable to 1982 and the preceding years. Also, see special caveat at the top of the preceding pages.

Residual Deliveries by Annual Uses

(Add 000 bbl.)

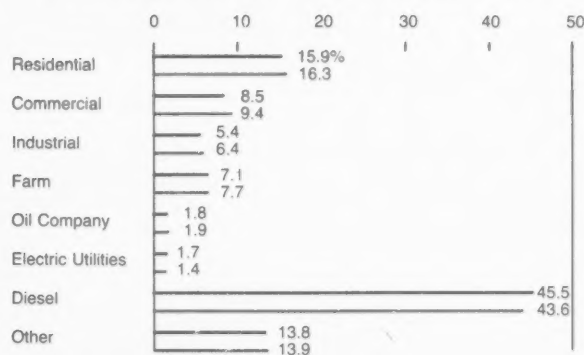
Year	Vessel Bunkering	Electric Utilities	Railroads	Oil Companies	Industrial	Commercial	Military	Other	Total
1988	124,976	227,164	1	10,317	91,787	42,589	3,269	4,173	504,276
1987	125,221	181,712	7	11,967	90,723	42,013	4,549	5,316	461,504
1986	125,889	215,276	14	18,239	106,962	35,595	4,308	7,434	517,717
1985	130,323	147,381	147	18,477	95,509	31,592	4,593	10,962	438,840
1984 (a)	135,408	186,318	43	27,680	94,375	33,777	5,291	18,307	501,199
1983 (a)	136,290	204,238	47	28,604	93,624	35,979	5,411	14,412	518,604
1982	152,586	227,419	170	45,319	122,619	65,781	7,829	4,784	626,510
1981	188,632	325,486	178	51,870	117,024	67,035	7,008	4,795	762,030

(a) See Footnote (a) in distillate summaries above.

Distillate Deliveries by Use As Percent of Total

1988 = 1,142,511,000 bbl.

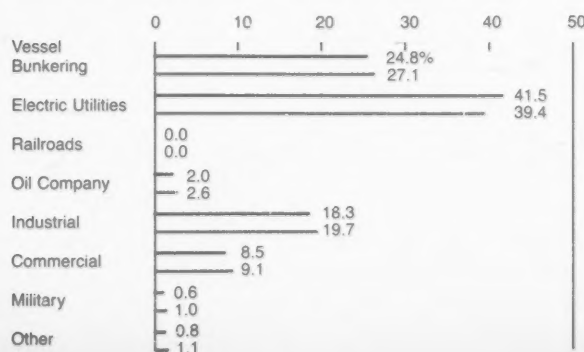
1987 = 1,086,419,000 bbl.



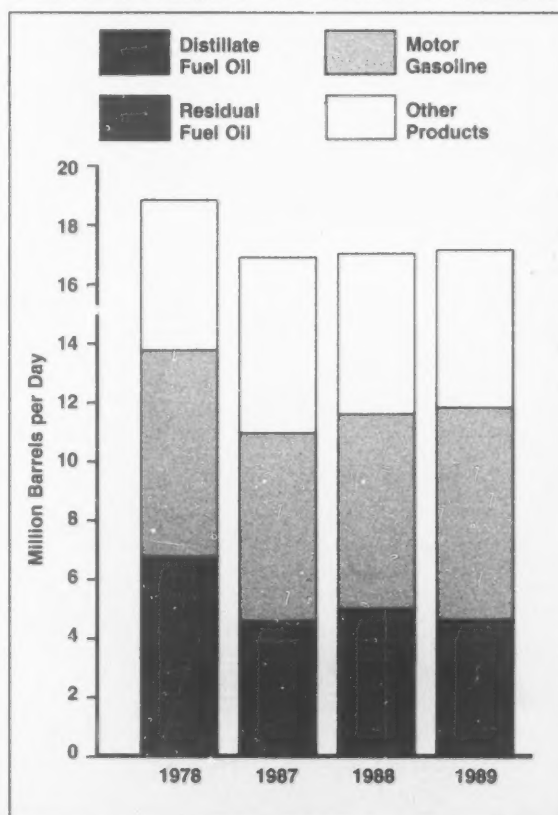
Residual Deliveries by Use As Percent of Total

1988 = 504,276,000 bbl.

1987 = 461,504,000 bbl.



Fuel Oil Demand vs. Other Products



U.S. Census: Fuel Oil and LPG Dealers With Payrolls—1987 vs. 1982

	Dollar Sales													
	Establishments				Per Establishment				Annual Payroll (\$)				No. of Employees	
	Variable		Year-End		(Add 000)		%		(Add 000)		%		1987	
	1987	1982	1987	1982	1987	1982	Chng.	1987	1982	Chng.	1987	1982	1987	1982
Alabama (total)	225	223	219	217	(x)	157,883	(x)	(x)	707,996	(x)	(x)	19,053	(x)	7
Fuel oil dealers	5	7	4	7	2,135	(x)	(x)	427,000	(x)	(x)	219	(x)	(x)	5
LPG dealers	212	199	207	193	157,355	148,666	1.7	713,844	748,080	4.6	25,629	18,320	39.9	1,022
Misc.*	8	17	8	17	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Alaska (total)	66	54	61	52	78,452	(x)	(x)	1,188,667	(x)	(x)	6,985	(x)	(x)	306
Fuel oil dealers	49	39	46	38	68,465	87,670	(21.9)	1,397,245	2,247,949	(37.8)	5,130	5,808	(11.5)	284
LPG dealers	16	12	14	12	(x)	13,302	(x)	(x)	1,108,500	(x)	(x)	1,391	(x)	(x)
Misc.*	1	3	1	2	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Arizona (total)	85	87	80	85	(x)	53,543	(x)	(x)	815,437	(x)	(x)	5,646	(x)	5
Fuel oil dealers	3	6	2	6	(x)	726	(x)	(x)	121,333	(x)	(x)	75	(x)	1
LPG dealers	77	69	74	68	66,791	50,799	31.0	867,416	736,626	17.4	9,166	5,276	74.1	509
Misc.*	5	12	4	11	2,103	1,836	14.5	420,600	153,090	175.0	360	286	18.6	39
Arkansas (total)	186	191	178	185	(x)	143,958	(x)	(x)	733,706	(x)	(x)	15,967	(x)	6
Fuel oil dealers	9	8	9	8	9,662	12,755	(24.2)	1,073,556	1,594,375	(32.7)	408	467	(12.6)	35
LPG dealers	173	173	162	170	84,997	130,211	(34.7)	491,312	739,835	(33.4)	14,015	15,338	(8.6)	881
Misc.*	7	7	7	7	(x)	(x)	(x)	(x)	(x)	(x)	(x)	182	(x)	(x)
California (total)	457	420	430	406	402,878	383,674	5.0	981,571	913,510	(3.5)	57,499	38,437	57.8	3,287
Fuel oil dealers	34	27	32	24	24,368	20,003	21.8	716,708	740,852	(3.3)	2,268	1,271	85.5	195
LPG dealers	346	326	324	319	363,539	351,729	3.4	1,050,691	1,078,923	(2.6)	52,657	33,043	59.4	2,639
Misc.*	77	67	74	63	14,971	11,946	25.3	194,429	178,299	9.0	2,464	2,123	17.0	202
Colorado (total)	133	136	125	123	(x)	76,995	(x)	(x)	586,140	(x)	(x)	6,943	(x)	4
Fuel oil dealers	9	9	9	8	5,714	3,111	83.7	634,889	345,667	83.7	889	189	370.4	42
LPG dealers	109	101	102	93	72,546	66,817	8.6	665,578	661,545	0.6	8,367	6,010	38.6	582
Misc.*	15	26	14	22	(x)	7,067	(x)	(x)	271,808	(x)	(x)	744	(x)	(x)
Connecticut (total)	435	444	418	423	(x)	868,989	(x)	(x)	1,957,182	(x)	(x)	71,081	(x)	9
Fuel oil dealers	379	383	367	366	744,025	816,994	(8.9)	1,963,137	2,133,143	(8.0)	95,522	63,825	49.7	4,089
LPG dealers	46	51	41	48	53,726	50,407	6.6	1,167,957	989,373	18.2	10,404	7,211	48.4	491
Misc.*	10	10	10	9	(x)	1,588	(x)	(x)	158,690	(x)	(x)	225	(x)	(x)
Delaware (total)	56	66	52	65	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Fuel oil dealers	47	51	39	51	119,841	106,702	12.3	2,549,809	2,082,196	21.9	8,392	6,198	3.2	411
LPG dealers	14	13	12	13	33,156	13,785	140.5	2,328,286	1,080,384	123.3	4,998	2,394	108.6	339
Misc.*	1	2	1	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
District of Columbia (total)	10	14	8	10	44,222	55,735	(20.7)	4,422,200	3,980,071	11.1	4,623	4,579	1.0	212
Fuel oil dealers	9	13	8	9	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
LPG dealers	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Misc.*	1	1	0	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Florida (total)	443	484	415	459	388,301	367,721	0.3	876,526	801,076	9.4	66,646	47,170	41.3	3,982
Fuel oil dealers	117	145	109	130	79,817	106,448	(25.0)	673,650	734,124	(8.2)	9,336	8,480	19.4	678
LPG dealers	300	314	283	305	302,631	274,511	10.2	1,008,770	874,239	15.4	55,783	37,848	47.4	3,109
Misc.*	26	25	23	24	5,853	6,292	(7.0)	225,115	251,880	(10.6)	1,529	882	77.4	115
Georgia (total)	336	305	317	296	237,116	222,000	6.8	705,702	727,869	(3.6)	38,216	25,005	52.9	2,274
Fuel oil dealers	14	13	20	15	15,480	21,491	(28.1)	644,167	1,343,188	(52.0)	2,129	1,841	184.5	175
LPG dealers	294	268	281	280	212,665	195,516	8.8	723,350	729,537	(0.9)	35,172	23,246	51.3	2,012
Misc.*	18	21	16	21	8,991	4,993	80.1	499,500	237,762	110.1	9,157	718	27.4	67
Hawaii (total)	8	8	8	8	(x)	795	(x)	(x)	99,375	(x)	(x)	136	(x)	19
Fuel oil dealers	3	1	3	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
LPG dealers	3	5	3	5	(x)	682	(x)	(x)	227,333	(x)	(x)	123	(x)	10
Misc.*	2	2	2	2	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Idaho (total)	65	56	60	55	(x)	43,510	(x)	(x)	776,864	(x)	(x)	4,057	(x)	8
Fuel oil dealers	8	12	7	12	8,458	4,991	69.5	1,057,250	415,917	154.2	934	385	135.9	88
LPG dealers	45	35	42	35	33,417	35,007	(4.5)	742,800	1,009,200	(25.8)	4,004	3,489	15.0	212
Misc.*	12	9	11	8	(x)	3,512	(x)	(x)	390,222	(x)	(x)	203	(x)	16

The Census Bureau has traditionally used year-end totals as its official count for retail establishments. The 1987 Census introduced a new approach, the number of establishments in existence at any given time—in other words, a peak (or variable)

count. For example, note that the year-end total of dealers for Alabama in the table below is only 219 while the variable (floating) total is 225. The Census Bureau says the year-end count will be dropped in future censuses.

	Dollar Series																					
	Establishments				(Add 000)				Per Establishment				Annual Payroll (\$)				No. of Employees				Average Per Est.	
	Variable		Year-End				%				%		(Add 000)		%				%			
	1987	1982	1987	1982	1987	1982	Chng.		1987	1982	Chng.		1987	1982	Chng.		1987	1982	Chng.	1987	1982	
Illinois (total)	310	333	293	323	219,337	314,120	(30.2)		707,536	943,303	(25.0)		30,677	26,431	16.1		1,754	1,718	2.1	6	5	
Fuel oil dealers	69	91	61	87	72,335	135,181	(46.8)		1,048,333	1,493,198	(29.8)		6,980	6,146	13.8		404	390	3.6	6	4	
LPG dealers	224	221	217	215	143,955	171,948	(16.3)		615,192	778,045	(26.5)		23,139	19,206	20.5		1,301	1,244	4.6	4	6	
Misc. *	17	21	15	21	3,086	6,291	(50.9)		181,588	299,571	9.4		557	1,079	(48.4)		49	84	(41.7)	3	4	
Indiana (total)	277	321	271	308	(x)	290,803	(x)		(x)	905,928	(x)		(x)	25,413	(x)		(x)	1,798	(x)	(x)		
Fuel oil dealers	59	94	57	89	44,889	177,856	(61.9)		760,831	1,892,065	(59.8)		3,467	8,383	(45.8)		264	432	(46.3)	4		
LPG dealers	205	207	202	201	131,143	169,262	(22.5)		639,722	817,691	(21.8)		19,374	18,492	4.8		1,161	1,233	(5.6)	6	6	
Misc. *	13	20	12	18	(x)	3,685	(x)		(x)	184,250	(x)		(x)	538	(x)		(x)	73	(x)	(x)	4	
Iowa (total)	250	248	234	240	(x)	200,921	(x)		(x)	810,165	(x)		(x)	16,438	(x)		(x)	1,096	(x)	(x)	4	
Fuel oil dealers	47	51	42	48	23,269	45,232	(48.6)		495,085	886,902	(44.1)		1,867	2,797	(33.2)		169	199	(15.0)	4	4	
LPG dealers	201	192	190	188	98,446	(x)	(x)		489,781	(x)	(x)		13,986	(x)	(x)		862	(x)	(x)	4	(x)	
Misc. *	2	5	2	4	(x)	(x)	(x)		(x)	(x)	(x)		(x)	(x)	(x)		(x)	(x)	(x)	(x)	(x)	
Kansas (total)	131	124	125	119	64,978	77,823	(16.5)		496,015	627,605	(21.0)		7,928	8,370	(5.3)		572	679	(15.2)	4	5	
Fuel oil dealers	22	19	20	19	(x)	13,729	(x)		(x)	722,579	(x)		(x)	925	(x)		(x)	79	(x)	(x)	4	
LPG dealers	100	96	96	91	51,608	62,494	(17.4)		516,080	650,979	(20.7)		6,709	7,066	(5.1)		458	573	(20.1)	5	6	
Misc. *	9	9	9	9	(x)	1,600	(x)		(x)	177,777	(x)		(x)	379	(x)		(x)	27	(x)	(x)	3	
Kentucky (total)	172	188	151	176	(x)	111,642	(x)		(x)	593,840	(x)		(x)	12,182	(x)		(x)	933	(x)	(x)	5	
Fuel oil dealers	28	36	27	31	20,090	17,290	16.2		717,500	480,278	49.4		1,382	1,062	30.1		126	107	17.8	5	3	
LPG dealers	122	122	108	119	77,005	86,932	(10.4)		631,189	704,361	(10.4)		12,096	9,969	21.3		736	727	1.5	6	6	
Misc. *	22	30	16	26	(x)	8,420	(x)		(x)	280,667	(x)		(x)	1,151	(x)		(x)	99	(x)	(x)	3	
Louisiana (total)	123	125	115	115	(x)	69,674	(x)		(x)	557,392	(x)		(x)	8,824	(x)		(x)	763	(x)	(x)	6	
Fuel oil dealers	8	11	8	9	2,591	6,586	(69.8)		332,875	780,545	(57.4)		337	1,190	(71.7)		31	95	(67.4)	4	9	
LPG dealers	106	97	101	91	51,074	59,253	(13.8)		480,830	610,856	(21.1)		9,830	7,369	33.4		643	677	2.6	6	6	
Misc. *	9	17	7	15	(x)	1,835	(x)		(x)	107,941	(x)		(x)	265	(x)		(x)	41	(x)	(x)	2	
Maine (total)	245	268	232	246	321,429	382,169	(15.9)		1,311,955	1,426,004	(8.0)		35,079	24,588	42.7		2,125	1,967	8.0	9	7	
Fuel oil dealers	192	214	185	199	290,703	355,787	(18.3)		1,514,078	1,662,556	(8.9)		30,573	21,593	41.6		1,854	1,709	8.5	10	8	
LPG dealers	36	36	34	34	27,727	23,848	16.3		770,194	862,444	16.3		3,988	2,633	51.5		212	202	5.0	6	6	
Misc. *	17	18	13	15	2,999	2,538	18.3		176,412	141,000	25.1		518	362	43.1		59	46	28.3	3	3	
Maryland (total)	192	207	176	212	385,599	437,847	(11.9)		2,008,328	2,115,203	(5.0)		49,134	34,219	43.6		2,558	2,407	6.3	13	12	
Fuel oil dealers	124	135	113	130	291,312	373,191	(21.9)		2,349,290	2,764,378	(15.0)		34,115	25,764	32.4		1,757	1,782	(1.4)	14	13	
LPG dealers	55	61	53	61	92,376	63,709	45.0		1,679,564	1,044,410	60.1		14,649	8,301	77.1		761	605	25.8	14	10	
Misc.	13	11	10	11	1,911	947	101.8		147,000	86,091	70.7		320	154	107.8		40	20	100.0	3	2	
Massachusetts (total)	825	888	780	862	(x)	1,397,027	(x)		(x)	1,573,229	(x)		(x)	109,904	(x)		(x)	6,905	(x)	(x)	8	
Fuel oil dealers	743	804	704	780	1,055,062	1,338,139	(21.2)		1,420,003	1,664,352	(14.7)		139,666	102,277	36.6		6,671	6,425	3.9	9	9	
LPG dealers	65	61	61	60	74,613	52,603	41.8		1,147,892	862,344	33.1		11,551	6,818	69.4		594	405	46.7	9	7	
Misc. *	17	23	15	22	(x)	6,285	(x)		(x)	273,261	(x)		(x)	809	(x)		(x)	75	(x)	(x)	3	
Michigan (total)	335	332	337	323	(x)	358,217	(x)		(x)	1,078,967	(x)		(x)	29,496	(x)		(x)	2,216	(x)	(x)	7	
Fuel oil dealers	136	137	124	133	158,857	178,779	(11.1)		1,168,086	1,304,956	(10.5)		12,236	10,597	15.5		748	1,008	(25.8)	6	7	
LPG dealers	203	180	199	177	208,742	177,724	17.9		1,028,286	967,356	4.1		26,851	18,624	44.2		1,503	1,170	28.5	7	7	
Misc. *	16	15	14	13	(x)	2,314	(x)		(x)	154,267	(x)		(x)	277	(x)		(x)	38	(x)	(x)	3	
Minnesota (total)	236	267	222	236	(x)	274,090	(x)		(x)	955,017	(x)		(x)	23,403	(x)		(x)	1,512	(x)	(x)	5	
Fuel oil dealers	91	106	85	96	120,309	138,749	(13.3)		1,322,077	1,308,953	1.0		9,208	7,665	20.1		663	635	4.4	7	6	
LPG dealers	139	156	132	135	(x)	133,319	(x)		(x)	859,609	(x)		(x)	15,390	(x)		(x)	847	(x)	(x)	5	
Misc. *	6	5	5	5	(x)	2,022	(x)		(x)	404,400	(x)		(x)	348	(x)		(x)	30	(x)	(x)	5	
Mississippi (total)	200	184	194	178	(x)	148,074	(x)		(x)	804,750	(x)		(x)	17,549	(x)		(x)	1,406	(x)	(x)	7	
Fuel oil dealers	5	9	5	9	(x)	2,616	(x)		(x)	290,667	(x)		(x)	201	(x)		(x)	28	(x)	(x)	3	
LPG dealers	190	170	184	164	144,799	144,802	—		762,100	851,776	(10.5)		23,165	17,303	33.9		1,497	1,370	9.3	8	8	
Misc. *	5	5	5	5	(x)	656	(x)		(x)	130,200	(x)		(x)	45	(x)		(x)	8	(x)	(x)	2	
Missouri (total)	453	459	437	430	241,631	250,858	(3.7)		533,402	546,532	(2.4)		30,296	23,519	31.1		2,289	2,009	13.9	5	4	
Fuel oil dealers	39	41	36	40	(x)	30,850	(x)		(x)	752,439	(x)		(x)	201	(x)		(x)	157	(x)	(x)	4	
LPG dealers	406	410	393	384	196,021	218,729	(10.8)		482,810	533,485	(9.5)		27,521	21,883	25.8		1,942	1,813	1.6	5	4	
Misc. *	8	8	8	6	(x)	1,279	(x)		(x)	159,875	(x)		(x)	245	(x)		(x)	39	(x)	(x)	5	

Continued....

U.S. Census: Fuel Oil and LPG Dealers With Payrolls—1987 vs. 1982 (Cont.)

	Dollar Sales																					
	Establishments				(Add 000)				Per Establishment				Annual Payroll (\$)				No. of Employees				Average Per Est.	
	Variable	Year-End					%			%			%			%						
	1967	1962	*1967	1962	1967	1962	Chng.	1967	1962	Chng.	1967	1962	Chng.	1967	1962	Chng.	1967	1962				
Montana (total)	62	55	50	52	(x)	22,459	(x)	(x)	408,345	(x)	(x)	2,247	(x)	(x)	191	(x)	(x)	3				
Fuel oil dealers	6	8	4	8	(x)	2,482	(x)	(x)	310,250	(x)	(x)	189	(x)	(x)	17	(x)	(x)	2				
LPG dealers	53	42	49	30	23,032	19,621	17.4	434,566	467,167	(7.0)	3,697	1,965	88.1	237	158	5.0	4	4				
Misc *	3	5	2	5	(x)	356	(x)	(x)	71,200	(x)	(x)	93	(x)	(x)	16	(x)	3	3				
Nebraska (total)	126	113	121	109	(x)	77,994	(x)	(x)	690,212	(x)	(x)	6,897	(x)	(x)	555	(x)	(x)	3				
Fuel oil dealers	19	18	17	16	13,289	15,632	(15.0)	699,421	868,444	(19.5)	990	817	21.2	92	86	6.5	5					
LPG dealers	103	89	100	87	43,504	59,073	(26.4)	422,369	663,742	(36.3)	6,305	5,662	11.4	420	425	(1.2)	5					
Misc *	4	6	4	6	(x)	3,289	(x)	(x)	411,125	(x)	(x)	418	(x)	(x)	44	(x)	(x)	6				
Nevada (total)	47	41	44	41	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)				
Fuel oil dealers	8	7	7	7	10,218	16,038	(36.3)	1,277,250	2,291,143	(44.3)	1,631	1,476	10.5	77	76	1.3	10	11				
LPG dealers	32	30	32	30	28,138	27,392	2.7	879,313	913,067	(3.7)	4,258	2,931	45.3	247	244	1.2	8	8				
Misc *	7	4	5	4	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)				
New Hampshire (total)	175	201	163	186	(x)	283,641	(x)	(x)	1,411,149	(x)	(x)	24,809	(x)	(x)	1,786	(x)	(x)	9				
Fuel oil dealers	136	154	125	141	227,213	248,757	(8.7)	1,670,684	1,615,305	3.4	27,807	20,668	34.5	1,475	1,500	(1.7)	11	10				
LPG dealers	24	34	24	32	40,908	33,292	22.9	1,704,500	979,176	74.1	7,130	3,913	82.2	293	261	12.3	12	8				
Misc *	15	13	14	13	(x)	1,582	(x)	(x)	122,482	(x)	(x)	228	(x)	(x)	25	(x)	(x)	2				
New Jersey (total)	568	619	534	597	992,959	1,236,038	(19.7)	1,748,167	1,996,830	(12.5)	130,109	99,169	31.2	5,928	5,781	2.5	10	9				
Fuel oil dealers	501	550	470	531	909,097	1,161,502	(21.7)	1,814,565	2,111,822	(14.1)	116,194	89,636	29.6	5,273	5,209	1.2	11	9				
LPG dealers	54	58	51	55	(x)	72,247	(x)	(x)	1,245,638	(x)	(x)	9,340	(x)	(x)	562	(x)	(x)	10				
Misc *	13	11	13	11	(x)	2,289	(x)	(x)	208,091	(x)	(x)	193	(x)	(x)	10	(x)	(x)	1				
New Mexico (total)	99	85	97	83	(x)	43,379	(x)	(x)	541,341	(x)	(x)	4,423	(x)	(x)	382	(x)	(x)	4				
Fuel oil dealers	3	1	3	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)				
LPG dealers	89	80	87	78	53,470	42,562	25.6	600,787	532,025	12.9	7,163	4,179	71.4	493	361	36.6	6	5				
Misc *	7	4	7	4	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)				
New York (total)	1,229	1,295	1,175	1,232	2,316,331	3,037,837	(23.8)	1,884,728	2,345,820	(19.7)	294,435	233,347	26.2	13,179	12,754	3.3	11	10				
Fuel oil dealers	994	1,054	953	1,001	2,098,451	2,847,063	(26.3)	2,111,118	2,701,198	(21.8)	255,558	207,613	23.1	11,290	11,047	3.3	11	10				
LPG dealers	206	201	195	194	205,332	171,727	19.6	996,757	854,363	16.7	36,798	23,576	58.1	1,770	1,496	18.3	9	7				
Misc *	29	40	27	37	12,548	19,047	(34.1)	432,690	476,175	(9.1)	2,079	2,158	(3.7)	119	212	(40.9)	4	5				
North Carolina (total)	457	712	436	483	(x)	404,090	(x)	(x)	567,542	(x)	(x)	33,461	(x)	(x)	2,876	(x)	(x)	4				
Fuel oil dealers	230	265	220	256	240,005	241,008	(0.4)	1,043,500	909,766	14.7	19,895	15,353	29.6	1,323	1,309	1.1	6	5				
LPG dealers	214	219	206	202	192,047	154,869	24.0	897,416	760,164	26.9	28,799	17,135	68.0	1,666	1,437	15.9	8	7				
Misc *	13	28	10	25	(x)	8,133	(x)	(x)	290,464	(x)	(x)	973	(x)	(x)	132	(x)	(x)	5				
North Dakota (total)	94	73	87	63	50,155	52,704	(3.9)	533,564	715,123	(25.5)	4,880	3,284	48.6	328	256	28.1	3	7				
Fuel oil dealers	34	36	33	32	30,341	36,348	(16.5)	892,382	1,009,667	(11.6)	2,110	1,729	22.0	130	143	(9.0)	2					
LPG dealers	58	36	52	30	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)				
Misc *	2	1	2	1	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)				
Ohio (total)	333	332	319	316	(x)	321,204	(x)	(x)	968,988	(x)	(x)	26,888	(x)	(x)	1,840	(x)	(x)	6				
Fuel oil dealers	136	137	128	128	148,627	151,933	(2.2)	1,052,846	1,109,000	(5.1)	10,675	7,854	35.9	755	584	29.3	6	4				
LPG dealers	176	163	171	159	169,927	162,616	4.5	954,646	997,644	(4.3)	25,129	18,308	37.3	1,240	1,180	5.1	7	7				
Misc *	21	32	20	29	(x)	6,655	(x)	(x)	207,969	(x)	(x)	726	(x)	(x)	76	(x)	(x)	2				
Oklahoma (total)	197	179	187	166	82,188	86,632	(5.1)	417,198	483,978	(13.8)	10,561	8,780	20.3	832	733	13.5	4	4				
Fuel oil dealers	28	20	25	17	(x)	6,485	(x)	(x)	324,250	(x)	(x)	560	(x)	(x)	45	(x)	(x)	2				
LPG dealers	164	154	158	145	67,012	79,496	(15.7)	408,610	516,208	(20.1)	9,241	8,121	13.8	718	670	7.2	4	4				
Misc *	5	5	4	4	(x)	651	(x)	(x)	130,200	(x)	(x)	99	(x)	(x)	18	(x)	(x)	4				
Oregon (total)	115	128	107	120	112,861	168,733	(33.1)	981,460	1,318,227	(25.6)	11,752	13,642	(13.9)	758	952	(20.0)	7	7				
Fuel oil dealers	49	67	44	61	75,482	132,054	(42.8)	1,540,449	1,971,030	(21.8)	6,925	9,868	(29.8)	440	681	(35.4)	9	10				
LPG dealers	49	45	47	44	34,708	32,493	6.8	708,327	722,067	(1.9)	4,388	3,144	39.6	276	224	23.2	6	5				
Misc *	17	16	16	15	2,671	4,221	(36.7)	157,118	263,813	(40.4)	439	630	30.3	42	47	10.6	2	3				
Pennsylvania (total)	834	870	801	844	1,355,420	1,589,201	(14.7)	1,625,204	1,826,668	(11.0)	151,166	114,250	32.3	7,890	7,814	1.0	9	9				
Fuel oil dealers	598	613	581	597	1,187,005	1,400,818	(15.3)	1,984,958	2,285,184	(13.1)	128,169	91,958	37.2	6,500	6,238	4.2	11	10				
LPG dealers	166	175	157	169	150,023	140,168	7.0	903,753	800,960	12.8	23,004	19,176	20.0	1,211	1,289	1.0	7	7				
Misc *	70	82	63	78	18,392	48,415	(62.0)	262,743	590,427	(55.5)	1,993	3,116	(36.0)	179	287	(37.6)	3	4				

	Dollar Sales															
	Establishments				Per Establishment				Annual Payroll (\$)				No. of Employees			
	Variable		Year-End		(Add 000)		%		(Add 000)		%		1987		1982	
	1987	1982	1987	1982	1987	1982	Chng.	1987	1982	Chng.	1987	1982	1987	1982	Chng.	Average Per Est.
Rhode Island (total)	151	177	145	169	182.170	258.396	(29.5)	1,206.428	1,459.864	(17.4)	26,809	20,292	32.1	1,445	1,368	5.6
Fuel oil dealers	137	157	131	150	170.201	243.056	(30.0)	1,242.343	1,548.127	(19.8)	24,913	18,600	33.9	1,352	1,247	8.4
LPG dealers	12	12	12	12	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Misc.*	2	8	2	7	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
South Carolina (total)	199	215	189	202	(x)	168.645	(x)	(x)	784.395	(x)	(x)	16,099	(x)	(x)	1,342	(x)
Fuel oil dealers	74	83	69	80	57.689	79.529	(27.5)	779.581	950.181	(18.6)	4,873	4,063	19.9	394	392	—
LPG dealers	114	122	112	113	96.745	87.805	10.4	848.640	719.713	(17.9)	17,109	11,685	46.4	705	91.3	(1.4)
Misc.*	11	10	8	9	(x)	1.511	(x)	(x)	151.100	(x)	(x)	352	(x)	(x)	32	(x)
South Dakota (total)	82	86	79	76	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Fuel oil dealers	25	27	25	25	20.647	17.788	16.1	825.880	658.815	25.4	1,225	1,066	14.9	111	110	0.0
LPG dealers	56	56	53	48	22.609	33.041	(31.6)	403.732	590.018	(31.6)	3,297	2,674	23.3	241	224	7.6
Misc.*	1	3	1	3	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Tennessee (total)	136	153	129	143	80.525	111.305	(27.7)	592.118	727.484	(18.6)	12,124	9,887	22.6	741	792	(6.4)
Fuel oil dealers	11	17	11	15	9.392	16.577	(43.3)	853.818	975.118	(12.4)	654	758	(13.7)	52	79	(34.2)
LPG dealers	107	109	102	102	67.349	77.215	(12.8)	629.430	708.394	(11.1)	16,787	7,496	43.9	612	582	5.2
Misc.*	18	27	16	26	3.787	17.513	(78.4)	210.389	648.630	(67.6)	684	1,621	(56.1)	77	131	41.2
Texas (total)	638	604	598	574	379.756	458.627	(17.2)	595.229	759.316	(21.6)	59,416	45,584	30.3	3,820	3,501	9.1
Fuel oil dealers	52	61	50	51	58.114	68.409	(15.0)	1,117.577	1,129.574	(1.1)	4,424	3,230	37.0	290	234	23.9
LPG dealers	537	494	506	479	308.942	374.179	(17.4)	575.311	757.447	(24.0)	53,040	40,425	31.2	3,320	3,064	8.4
Misc.*	49	49	42	44	12.700	16.039	(20.8)	259.184	327.327	(20.8)	1,952	1,929	1.2	210	203	3.4
Utah (total)	55	50	43	46	(x)	43.289	(x)	(x)	(x)	(x)	(x)	3,418	(x)	(x)	259	(x)
Fuel oil dealers	5	12	4	10	(x)	20.149	(x)	(x)	(x)	(x)	(x)	930	(x)	(x)	68	(x)
LPG dealers	45	30	34	28	22.173	21.344	3.9	492.733	711.467	(30.7)	3,268	2,218	48.2	272	167	62.9
Misc.*	5	8	5	8	1.162	1.796	(35.3)	232.400	224.500	3.5	137	270	(60.5)	16	24	33.3
Vermont (total)	126	148	118	142	172.757	166.885	3.5	1,371.087	1,127.601	21.6	21,312	13,551	57.3	1,139	1,027	10.9
Fuel oil dealers	90	96	85	92	146.089	140.208	4.2	1,632.211	1,460.500	11.8	16,738	10,375	61.3	871	752	15.8
LPG dealers	29	41	27	40	25.883	25.537	1.3	892.517	623.341	43.2	4,471	3,044	46.9	255	250	—
Misc.*	7	11	6	10	785	1.120	(29.9)	112.148	101.818	10.1	103	132	(22.0)	13	19	(3.2)
Virginia (total)	317	376	299	353	455.091	524.994	(13.3)	1,435.618	1,396.261	2.8	53,776	43,319	24.1	3,168	3,184	0.0
Fuel oil dealers	187	219	180	206	333.033	417.526	(20.2)	1,780.925	1,906.511	(6.6)	35,025	29,297	19.6	2,118	2,105	0.0
LPG dealers	97	105	89	98	115.789	86.878	33.6	1,193.701	825.505	44.6	17,570	11,567	51.9	918	834	10.1
Misc.*	33	52	30	49	6.289	20.790	(69.7)	190.576	399.808	(52.3)	1,181	2,455	(51.9)	132	245	(46.1)
Washington (total)	166	203	161	195	151.961	246.656	(38.4)	915.428	1,215.054	(24.7)	22,311	22,896	(2.6)	1,157	1,360	(14.9)
Fuel oil dealers	83	123	82	117	107.677	192.617	(44.1)	1,297.313	1,565.992	(17.2)	16,117	17,437	(7.6)	762	926	(15.6)
LPG dealers	63	64	59	63	39.774	49.677	(19.9)	631.333	776.203	(18.7)	5,307	4,475	18.6	306	355	(13.8)
Misc.*	20	16	20	15	4.510	4.362	3.4	225.500	272.625	(17.3)	887	984	(9.9)	69	79	(12.7)
West Virginia (total)	44	49	43	45	(x)	42.199	(x)	(x)	861.204	(x)	(x)	4,222	(x)	(x)	332	(x)
Fuel oil dealers	14	15	13	14	(x)	16.719	(x)	(x)	1,114.600	(x)	(x)	868	(x)	(x)	70	(x)
LPG dealers	25	28	25	27	16.127	15.693	2.8	645.080	560.464	15.1	2,512	2,082	20.7	150	180	(16.7)
Misc.*	5	6	5	4	(x)	9.787	(x)	(x)	1,631.167	(x)	(x)	1,272	(x)	(x)	82	(x)
Wisconsin (total)	318	320	295	313	(x)	418.750	(x)	(x)	1,308.294	(x)	(x)	30,119	(x)	(x)	2,069	(x)
Fuel oil dealers	140	160	126	157	149.604	279.046	(46.4)	1,068.600	1,744.038	(38.7)	11,794	14,845	(20.6)	798	1,056	(24.4)
LPG dealers	165	151	158	147	116.129	138.726	(16.3)	703.812	918.715	(23.4)	19,343	15,141	27.8	1,124	991	13.4
Misc.*	13	9	11	9	(x)	978	(x)	(x)	108.667	(x)	(x)	133	(x)	(x)	22	(x)
Wyoming (total)	63	46	62	43	26.323	28.144	(6.4)	417.825	611.826	(31.7)	4,293	3,007	42.8	275	245	12.2
Fuel oil dealers	3	3	3	3	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
LPG dealers	53	39	52	36	21.251	24.851	(14.5)	419.830	637.205	(34.1)	3,629	2,746	32.2	229	219	4.6
Misc.*	7	4	7	4	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)	(x)
Total U.S.	12,908	13,362	12,226	12,737	14,249,693	16,817,557	(15.3)	1,103,943	1,258,611	(12.3)	1,834,191	1,404,806	30.6	99,618	95,092	4.8
Total Fuel oil only	5,816	6,368	5,511	6,061	9,294,115	11,754,264	(20.9)	1,598,025	1,845,833	(13.4)	1,058,034	830,123	27.6	54,035	52,754	2.8
Total LPG only	6,378	6,115	6,073	5,898	4,769,309	4,804,521	(0.7)	747,775	785,694	(4.8)	745,963	543,913	37.1	43,045	39,292	9.6
Misc. Total	714	839	642	778	186,269	259,172	(28.1)	260,880	308,906	(15.5)	29,914	36,770	(5.1)	2,538	3,046	(16.7)

x—Withheld to avoid disclosing data for individual companies or for other reasons. *—Includes fuel oil and ice dealers not classified elsewhere.

(a) The U.S. Census Bureau makes a study of retail trades every five years. The data in this table were extracted by NPN from the state-by-state reports published in the spring, summer and fall of 1989.

Source: 1987 Census of Retail Trades, Bureau of the Census.

Industry Profiles — 1989

Petroleum Products Sold (% of total volume)

	No. 2	No. 1	No. 4	Nos. 5&6	No. 2 for Diesel	Gasoline	Lpg/Lng	Other
New England	80.7	3.2	0.4	*	9.2	7.3	0.5	0.3
Mid-Atlantic	76.1	3.2	0.4	0.1	8.0	9.9	0.8	1.5
South	42.2	11.3	0.2	0.2	18.0	36.6	2.3	0.7
Midwest	28.8	7.7	2.2	0.4	25.6	35.6	2.4	1.3
West	39.5	6.2	*	*	32.8	31.4	2.3	1.4
All Sections	53.5	6.3	0.6	0.1	18.7	24.2	1.7	1.0

* - Less than .1%

Dealers Operating Bulk Plants (%)

	With Bulk Plants	Bulk Plants Storing Other Prods
New England	48.8	47.6
Mid-Atlantic	58.1	68.0
South	90.7	84.6
Midwest	90.7	94.9
West	76.7	93.9
All Sections	73.0	77.8

Average Size of Business

	No. of Home Fuel Oil Accts.	No. C/I Accts.	Gals. of Distillate	Gals. of Residual	Gals. of Gasoline	No. of Empls.
New England	2,044	292	1,935,235	218,059	636,765	18.6
Mid-Atlantic	2,213	280	2,211,944	476,389	1,340,206	14.1
South	690	87	1,458,685	165,343	1,788,160	8.9
Midwest	678	231	1,624,027	ID	2,366,972	9.6
West	1,190	301	1,735,452	143,548	1,146,032	8.2
All Sections	1,363	238	1,793,069	250,834	1,455,627	11.9

I.D. - Insufficient Data

Dealers Trading on the Oil Futures Market

New England	27.9
Mid-Atlantic	4.6
South	7.0
Midwest	2.3
West	2.3
All Sections	8.8

* - Less than .1%

Percent of Fuel Oil Dealers Who Sell, Install and/or Service Selected HVAC Equipment

	RESIDENTIAL				
	Oil Burners	Gas Burners	Domestic Hot Water	Boilers	Hydronic Systems
New England	100.0	7.0	97.7	67.4	79.1
Mid-Atlantic	97.7	37.2	88.4	93.0	67.4
South	70.0	30.0	60.0	30.0	10.0
Midwest	53.3	16.7	20.0	33.3	13.3
West	93.3	20.0	53.3	53.3	26.7
All Sections	82.9	22.2	63.9	55.4	39.3

	COMMERCIAL				
	Oil Burners	Gas Burners	Domestic Hot Water	Boilers	Hydronic Systems
New England	72.1	25.6	60.5	65.1	48.8
Mid-Atlantic	53.5	18.6	39.5	46.5	30.2
South	30.0	20.0	30.0	30.0	10.0
Midwest	6.7	ID	ID	ID	ID
West	53.3	20.0	26.7	20.0	16.7
All Sections	43.1	21.1	39.2	40.4	26.4

I.D. - Insufficient Data

Fuel Oil Dealers Who Sell, Install and/or Service Equipment (%)

New England	100.0
Mid-Atlantic	100.0
South	20.9
Midwest	34.9
West	34.8
All Sections	58.1

Computer Applications (% of marketers using EDP for listed operations)

	New England	Mid- Atlantic	South	Mid- West	West	All Sections
Accts Rec/Billing	100.0	88.9	95.6	100.0	92.9	95.5
General Ledger	75.9	77.8	76.2	78.3	89.3	79.5
Accts Payable	58.6	66.7	71.4	82.6	78.6	71.6
Delivery Sched	100.0	69.4	42.9	26.1	42.9	56.3
Inventory Recon	48.3	33.3	71.4	56.5	60.7	54.0
Excise Tax	44.8	33.3	57.1	65.2	42.9	48.7
Word Processing	58.6	33.3	19.0	56.2	60.7	45.6
Payroll	27.6	36.1	47.6	52.2	50.0	42.7
Fixed Assets	20.7	36.1	28.6	34.8	42.9	32.6
Pricing Analysis	13.8	19.4	23.3	4.3	32.1	18.6
Supplier Costs	6.9	19.4	23.3	4.3	35.7	17.9
Oil Price Info	10.3	19.4	19.0	17.4	21.4	17.5
Comm w/Stations	6.9	8.3	9.5	4.3	28.6	11.5

Trucks per Marketer

	—Average No.—		—Avg. Size— (in gals.)		Opt. Size Preferred
	Delivery Trucks	Trailers	Largest	Smallest	
New England	4.2	0.8	3,026	2,544	2,932
Mid-Atlantic	5.3	0.8	3,150	2,295	2,977
South	3.7	0.9	2,379	1,756	2,300
Midwest	3.4	0.6	2,479	1,870	2,309
West	4.4	1.1	2,660	1,746	2,825
All Sections	4.2	0.8	2,739	2,042	2,669

Average Drop in Gallons

	275-gal. Tanks	550-gal. Tanks
New England	172.9	347.8
Mid-Atlantic	176.6	368.5
South	171.9	342.4
Midwest	180.9	403.2
West	170.8	358.0
All Sections	174.6	364.0

Engines by Type (% of readers)

	—Use—			—Prefer—	
	Diesel	Gasoline	Both	Diesel	Gasoline
New England	60.0	10.0	30.0	82.5	7.5
Mid-Atlantic	38.1	14.3	47.6	88.1	4.8
South	9.3	41.9	39.6	48.8	37.2
Midwest	20.9	44.2	32.6	53.5	30.2
West	20.0	25.0	55.0	67.5	15.0
All Sections	29.7	27.1	40.9	68.1	18.9

Average Age of Trucks

	Year of Oldest	Year of Newest
New England	1976.8	1986.1
Mid-Atlantic	1973.1	1983.6
South	1975.4	1984.4
Midwest	1978.1	1986.3
West	1971.2	1981.8
All Sections	1974.9	1984.4

Truck Tanks by Type (% of readers)

	—Use—			—Prefer—	
	Steel	Aluminum	Both	Steel	Aluminum
New England	17.9	28.2	53.8	12.8	74.4
Mid-Atlantic	29.7	27.0	43.2	18.9	75.7
South	41.9	11.6	30.2	25.6	51.2
Midwest	69.8	2.3	20.9	41.9	20.9
West	42.5	20.0	35.0	37.5	50.0
All Sections	40.4	17.8	36.6	27.3	54.4

Buying This Year (%)

	New Truck	New Tank
New England	48.6	18.9
Mid-Atlantic	27.9	4.7
South	18.6	16.3
Midwest	20.9	14.0
West	34.9	16.3
All Sections	30.2	14

Sources of Business Income (% of total business income)

	FUEL OIL				GASOLINE			
	—Retail—		—Bulk—		—Retail—		—Bulk—	
	Primary	Secondary	Primary	Secondary	Primary	Secondary	Primary	Secondary
New England	97.7	*	9.3	7.0	16.3	14.0	11.6	7.0
Mid-Atlantic	97.7	*	11.6	18.6	20.9	9.3	11.6	9.3
South	62.8	14.6	30.2	20.9	48.8	20.9	44.2	11.6
Midwest	69.8	33.3	44.2	32.6	55.1	16.5	44.2	30.2
West	44.2	25.6	41.9	18.6	48.8	11.6	55.8	9.3
All Sections	74.4	14.7	27.4	19.5	38.0	14.5	33.5	13.5

* - Less than .1%

The Gas Threat

	% Losing Customers	Avg. No. Lost
New England	22.5	5.6
Mid-Atlantic	62.8	16.8
South	33.3	25.3
Midwest	53.3	13.5
West	100.0	14.1
All Sections	54.4	15.1

The Service Department

	% Have Service Dept.	Avg. No. of Calls /Year	Value of Parts Inventory	% Service Dept. Profitable	No. of Techs.
New England	100.0	3,182	35,870	41.9	4.4
Mid-Atlantic	97.7	1,329	55,109	61.9	4.7
South	27.9	457	15,857	41.7	2.0
Midwest	30.2	333	12,438	30.8	1.8
West	34.9	1,118	19,571	53.3	2.4
All Sections	58.1	1,284	27,769	45.9	3.1

Dealers Using Additives (in %)

	Use Additives	Blend at Bulk Plant
New England	51.2	22.7
Mid-Atlantic	44.2	21.1
South	39.5	41.2
Midwest	62.8	44.4
West	39.5	23.5
All Sections	47.4	30.6

	Blend on Trucks	Blend in Cust.'s Tanks
New England	45.5	45.5
Mid-Atlantic	42.2	52.6
South	47.1	29.4
Midwest	48.1	44.4
West	47.1	41.2
All Sections	46.0	42.6

Annual Heating Oil Sales by Types of Customers (% of total customers served)

	Private Homes	Apts.	Educ.	Hospi- tals	Com- mercial	Indus- trial
New England	81.0	5.4	1.9	0.4	7.1	0.5
Mid-Atlantic	83.9	5.4	1.0	0.5	5.1	1.3
South	79.9	0.9	2.0	1.1	14.3	1.8
Midwest	74.1	1.0	1.8	0.8	17.5	5.3
West	81.5	1.7	1.7	0.4	10.4	5.2
All Sections	80.1	2.9	1.7	0.6	10.9	2.8

Fuel Oil Dealers Who Sell, Install and/or Service Selected HVAC Equipment (%)

RESIDENTIAL

	Furnaces	Warm Air Systems
New England	100.0	97.7
Mid-Atlantic	97.7	88.4
South	80.0	50.0
Midwest	33.3	20.0
West	100.0	66.7
All Sections	82.2	64.6

Central Air Conditioning Heat Pump

New England	39.5	9.3
Mid-Atlantic	58.1	11.6
South	40.0	10.0
Midwest	13.3	16.7
West	20.0	20.0
All Sections	34.2	13.5

COMMERCIAL

Furnaces Warm Air Systems

New England	62.8	51.2
Mid-Atlantic	46.5	32.6
South	40.0	20.0
Midwest	I.D.	I.D.
West	60.0	33.3
All Sections	52.3	34.3

* - Less than .1%

I.D. - Insufficient Data

Central Air Conditioning Heat Pump

New England	30.2	7
Mid-Atlantic	14.0	11.6
South	30.0	*
Midwest	I.D.	I.D.
West	6.7	13.3
All Sections	20.2	8.0

* - Less than .1%

I.D. - Insufficient Data

Average Number of Units Installed in Past 12 Months

RESIDENTIAL

COMMERCIAL

	Burners	Boilers	F'naces	Burners	Boilers	F'naces
New England	30.9	24.3	16.9	0.9	0.8	0.7
Mid-Atlantic	33.9	25.7	41.2	7.0	4.0	7.6
South	4.1	2.3	6.3	0.6	0.6	0.2
Midwest	9.3	1.1	26.9	*	*	*
West	73.3	4.5	24.1	2.0	0.1	1.5
All Sections	30.3	11.6	23.1	2.1	1.1	0.2

* - Less than 0.1

I.D. - Insufficient Data

Average Storage Capacity in Gals.

	No. 2 Oil	Diesel	Gasoline	Lpg	Kerosene
New England	215,143	25,900	22,400	11,510	4,400
Mid-Atlantic	262,208	9,571	53,916	15,500	23,600
South	36,257	24,750	63,172	*	22,684
Midwest	105,579	59,357	44,691	21,375	28,464
West	89,030	84,900	93,208	29,300	*
All Sections	141,643	40,896	55,477	19,421	19,787

I.D. - Insufficient Data

Retail Gasoline Outlets and Volume

	Avg. No.	Less Than 50,000*	50,000 - 100,000*	100,000/mo. +*
New England	3.8	57.1	14.3	28.6
Mid-Atlantic	5.8	75.0	12.5	12.5
South	2.6	65.4	8.9	7.6
Midwest	1.4	77.8	14.2	14.2
West	5.7	61.1	33.3	5.6
All Sections	3.9	66.3	16.6	13.7

* percent reporting such volume in gallons per month.

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Top 10 Importers of Crude and Product—1989

Company	Headquarters	Volume (000-b/d)	% of U.S. Total	Company	Headquarters	Volume (000-b/d)	% of U.S. Total
CRUDE OIL AND PRODUCT				DISTILLATES			
Chevron	San Francisco	724	9.07%	Amerada Hess	New York	67	22.19
Star	Houston	584	7.32	Global Petro.	Waltham, Mass.	26	8.61
Exxon	New York	524	6.57	Cargill	Minneapolis	22	7.28
Shell	Houston	394	4.94	G. E. Warren	Vero Beach, Fla.	20	6.62
Amoco	Chicago	386	4.84	Northville	Melville, N.Y.	19	6.29
Amerada Hess	New York	321	4.02	Astroline	Reading, Mass.	17	5.63
Coastal	Houston	306	3.84	Cumberland Farms	Canton, Mass.	11	3.64
Sun	Philadelphia	299	3.75	Scanoil	New York	9	2.98
Mobil	New York	294	3.68	Vitol S.A.	Stamford, Conn.	8	2.65
Citgo	Tulsa	269	3.37	Coastal	Houston	8	2.65
Total Top 10		4,101	51.40	Total Top 10		207	68.54
Total U.S.		7,979		Total U.S.		302	
CRUDE OIL ONLY				RESIDUAL			
Chevron	San Francisco	675	11.62	Amerada Hess	New York	121	19.84
Star	Houston	569	9.80	Coastal	Houston	73	11.97
Exxon	New York	404	6.96	Phibro	Greenwich, Conn.	52	8.52
Amoco	Chicago	373	6.42	Petro-Diamond	Irvine, Calif.	31	5.08
Shell	Houston	368	6.34	Clarendon Mktg	Stamford, Conn.	28	4.59
Mobil	New York	272	4.68	Chevron	San Francisco	28	4.59
BP America	Cleveland	261	4.49	Charter	Jacksonville, Fla.	25	4.10
U.S. Steel	Pittsburgh	257	4.42	Clark Trading	Clayton, Mo.	24	3.93
Sun	Philadelphia	243	4.18	Vitol S.A.	Stamford, Conn.	23	3.77
Koch	Wichita, Kan.	221	3.81	BP America	Cleveland	23	3.77
Total Top 10		3,643	62.72	Total Top 10		428	70.16
Total U.S.		5,808		Total U.S.		610	
FINISHED MOTOR GASOLINE				JET FUELS			
Getty	Jenicho, N.Y.	37	10.19	Amerada Hess	New York	24	23.53
Amerada Hess	New York	31	8.54	BP America	Cleveland	21	20.59
C. Itch (Amer.)	Houston	26	7.16	Citgo	Tulsa	13	12.75
Citgo	Tulsa	25	6.89	United Airlines	Chicago	9	8.82
Bear Stearns	New York	23	6.34	Cumberland Farms	Canton, Mass.	7	6.86
Coastal	Houston	19	5.23	PanAm World Airways	New York	7	6.86
Mobil	New York	17	4.68	Texaco	White Plains, N.Y.	6	5.88
Cumberland Farms	Canton, Mass.	16	4.41	Mobil	New York	3	2.94
Texaco	White Plains, N.Y.	16	4.41	Western Petro.	Eden Prairie, Minn.	3	2.94
Northville	Melville, N.Y.	15	4.13	Amer. Airlines	Dallas/Ft. Worth	2	1.96
Total Top 10		225	61.98	Total Top 10		95	93.14
Total U.S.		363		Total U.S.		102	

Source: Energy Information Administration. Petroleum Supply Monthly. Figures are preliminary.

U.S. Dependency on Crude and Product Imports

(Add 000 b/d)

Year	Net imports					Net imports as % of U.S. Petroleum products supplied			
	Total from All countries	From Arab OPEC Members	% from Arab OPEC	From all OPEC Members	% from All OPEC	U.S. Petro- leum Products Supplied	Total from All countries	From Arab OPEC Members	From all OPEC Members
1989 Average	7,072	2,085	29.7%	4,164	58.9%	17,760	39.8%	11.7%	23.4%
1st Qtr.	6,946	2,034	29.3	3,866	55.7	17,623	39.4	11.5	21.9
2nd Qtr.	7,007	2,047	29.2	3,994	57.0	16,809	41.7	12.2	23.8
3rd Qtr.	7,452	2,313	31.0	4,367	58.6	16,785	44.4	13.8	26.0
4th Qtr.	7,072	2,085	29.5	4,164	58.9	17,760	39.8	11.7	23.4
1988 Average	6,353	1,826	28.7	3,421	53.8	17,170	37.0	10.6	19.9
1st Qtr.	6,006	1,668	27.8	3,155	52.5	17,443	34.4	9.6	18.1
2nd Qtr.	6,240	1,640	26.3	3,355	53.8	16,533	37.7	9.9	20.3
3rd Qtr.	6,353	1,975	31.1	3,545	55.8	16,917	37.6	11.7	21.0
4th Qtr.	6,807	2,017	29.6	3,625	53.3	17,782	38.3	11.3	20.4
1987 Average	5,914	1,272	21.5	3,053	51.6	16,665	35.5	7.6	18.3
1986 Average	5,439	1,160	21.3	2,828	52.0	16,281	33.4	7.1	17.4
1985 Average	4,286	470	11.0	1,821	42.5	15,726	27.3	3.0	11.6
1984 Average	4,715	817	17.3	2,037	43.2	15,726	30.0	5.2	13.0
1983 Average	4,312	630	14.6	1,843	42.7	15,231	28.3	4.1	12.1
1982 Average	4,298	852	19.8	2,136	49.7	15,296	28.1	5.6	14.0
1981 Average	5,401	1,844	34.1	3,315	61.4	16,058	33.6	11.5	20.6
1980 Average	6,385	2,549	39.9	4,293	67.2	17,056	37.3	14.9	25.2
1979 Average	7,985	3,054	38.2	5,633	70.5	18,513	43.1	16.5	30.4
1978 Average	8,002	2,962	37.0	5,747	71.8	18,847	42.5	15.7	30.5
1977 Average	8,565	3,184	37.2	6,140	72.3	18,431	46.5	17.3	33.6
1976 Average	7,090	2,423	34.2	5,063	71.4	17,461	40.6	13.9	29.0
1975 Average	5,846	1,382	23.6	3,599	61.2	16,322	35.8	8.5	22.0
1974 Average	5,892	752	12.8	3,277	55.6	16,653	35.4	4.5	19.7
1973 Average	6,025	914	15.2	2,991	49.6	17,038	34.8	5.3	17.3

Source: Energy Information Administration. Monthly Energy Review. December 1989, published May 1990.

Role of Imports in Domestic Demand

(Add 000 bbl.)

	Total Imports			Domestic Demand for Refined Products			Imports as % of U.S. Demand
	Total(a)	b/d Avg.	% Change	Total	b/d Avg.	% Change	
1989(b)	2,912,335	7,979	7.8%	6,294,060	17,244	—	46.3%
1988	2,701,730	7,402	10.8	6,308,295	17,283	3.7	42.8
1987	2,437,470	6,678	7.3	6,082,725	16,665	2.3	40.1
1986	2,271,760	6,224	22.8	5,945,565	16,281	3.5	38.2
1985	1,849,455	5,067	(6.8)	5,739,990	15,726	—	32.2
1984	1,984,505	5,437	7.6	5,739,990	15,726	3.2	34.6
1983	1,843,615	5,051	(1.2)	5,559,315	15,231	(.04)	33.2
1982	1,866,245	5,113	(14.7)	5,583,040	15,296	(4.7)	33.4
1981	2,188,540	5,996	(13.2)	5,861,170	16,058	(5.9)	37.3
1980	2,521,785	6,909	(18.3)	6,225,440	17,056	(7.9)	40.5
1979	3,086,440	8,456	1.1	6,757,245	18,513	(1.8)	45.7
1977 (peak year)	3,214,555	8,807	20.1	6,727,315	18,431	5.3	47.8
1975	2,210,335	6,056	(0.9)	5,957,515	16,322	(2.0)	37.1
1970	1,248,062	3,419	8.0	5,364,473	14,697	4.0	23.3
1960	664,111	1,815	2.0	3,585,820	9,797	2.8	18.5

(a) Crude oil and products but not crude from Strategic Petroleum Reserve; (b) Preliminary. Special note: Data for 1977 through 1985 are restated to reflect EIA information rather than other sources used in 1984.

Source: American Petroleum Institute Basic Petroleum Data Book for 1950 through 1976; Energy Information Administration, Monthly Energy Review for 1977 through 1989.

Petroleum Products Imported

(Thousands of b/d)

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1989												
Total Motor Gasoline	380	490	429	437	403	421	438	410	406	423	460	374
Leaded	4	5	3	12	5	6	1	0	0	0	0	0
Unleaded	385	387	378	359	352	385	397	357	312	364	390	299
Blending Components	30	98	48	66	47	30	40	53	94	57	69	75
Jet Fuel	85	120	100	127	120	112	113	84	95	70	91	111
Distillate Fuel Oil	331	322	439	299	290	233	335	254	243	254	298	323
Residual Fuel Oil	877	863	703	681	526	515	546	478	421	575	538	612
Other Petroleum Products(a)	846	853	729	745	693	674	691	733	750	743	767	612
1988												
Total Motor Gasoline	357	419	361	397	502	493	534	530	452	411	514	407
Leaded	7	14	10	9	37	18	8	7	4	2	13	11
Unleaded	317	351	308	340	378	406	453	458	399	361	438	330
Blending Components	33	54	43	48	87	69	73	65	49	48	63	66
Jet Fuel	82	67	97	86	104	74	81	103	61	138	79	161
Distillate Fuel Oil	355	330	243	208	228	209	205	270	292	324	308	399
Residual Fuel Oil	737	792	610	465	423	349	436	515	566	522	765	997
Other Petroleum Products(a)	750	694	628	768	726	704	731	717	666	728	862	676
1987												
Total Motor Gasoline	474	372	419	404	386	412	515	494	467	454	548	385
Leaded	37	16	35	12	22	37	69	22	51	26	75	27
Unleaded	356	293	329	362	332	348	383	373	370	330	409	292
Blending Components	81	63	55	30	32	27	63	98	46	97	64	65
Jet Fuel	43	67	83	65	67	66	73	54	83	83	55	68
Distillate Fuel Oil	222	253	297	192	203	265	381	222	222	237	187	378
Residual Fuel Oil	701	668	559	476	505	481	721	512	526	414	568	650
Other Petroleum Products(a)	529	759	657	643	572	738	604	661	769	739	697	714

(a) Includes kerosine, unfinished oils, motor gasoline blending components, liquefied petroleum gas and other oils.

Source: Energy Information Administration, Weekly Status Reports.

Crude and Product Imports by PAD (a)...

(Add 000 b/d)

	1989	1988	%chng '89 vs. '88	1987	1986	1985
PAD 1*						
Total crude imports: 1,195,000 b/d.						
Total product imports: 1,492,000 b/d.						
Major Sources: Venezuela, Virgin Islands, Nigeria, United Kingdom.						
Leading importers: Amerada Hess, Texaco, Sun, Chevron.						
Finished gasoline	334	351	(4.8)	324	251	298
Blending components	44	50	(16)	40	43	48
Unfinished oils	122	122	-	106	82	64
Liquefied Petro. gases	27	37	(27)	38	36	24
Distillates	284	270	5	221	216	177
Residual	563	556	(2)	516	593	449
Other products	115	120	(4)	90	92	99
Total products	1,492	1,506	1	1,335	1,312	1,159
Crude oil	1,195	1,164	3	1,109	1,056	977
Total crude oil and products	2,687	2,670	1	2,444	2,368	2,137

*PAD 1 includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, Delaware, Maryland, West Virginia, North and South Carolina, Georgia and Florida.

PAD 2*

Total crude imports: 1,048,000 b/d

Total product imports: 1,117,000 b/d

Major Sources: Canada, Nigeria, Saudi Arabia, Mexico

Major importers: Koch, Ashland, Shell, Apex.

Finished gasoline	5	4	3	4	5	12
Blending components	0	1	-	(s)	1	(s)
Unfinished oils	0	3	-	(s)	0	8
Liquefied Petro. gases	93	89	4	76	982	119
Distillates	8	6	33	8	8	7
Residual	4	4	-	6	4	2
Other products	7	21	(67)	8	7	8
Total products	117	128	(9)	102	107	157
Crude oil	1,048	923	14	860	781	590
Total crude and products	1,165	1,051	11	962	888	746

*PAD 2 includes North and South Dakota, Nebraska, Kansas, Oklahoma, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Michigan, Indiana, Ohio, Kentucky and Tennessee: (s) means less than 500 b/d.

PAD 3*

Total crude imports: 3,230,000 b/d.

Total product imports: 471,000 b/d.

Major Sources: Saudi Arabia, Mexico, Venezuela, Nigeria.

Major importers: Chevron, Texaco, USX (Marathon), Arco.

Finished gasoline	5	9	(4)	15	7	20
Blending components	13	7	86	7	9	6
Unfinished oils	217	224	3	169	152	243
Liquefied Petro. gases	45	61	26	53	98	18
Distillates	3	2	50	6	1	2
Residual	16	22	(27)	25	33	45
Other products	172	91	89	96	94	74
Total products	471	416	13	372	393	409
Crude oil	3,230	2,734	18	2,417	2,037	1,419
Total crude and products	3,701	3,148	18	2,789	2,430	1,827

*PAD 3 includes Alabama, Arkansas, Louisiana, Texas and New Mexico.

(a) The summaries at the top of each PAD are total figures for 1989, i.e. imports minus exports; the rest of the figures are total imports.

(Add 000 b/d)

	1989	1988	%chg '89 vs. '88	1987	1986	1985
PAD 4*						
Total crude imports: 67,000 b/d.						
Total product imports: 10,000 b/d.						
Major sources: Canada.						
Major importers: Du Pont (Conoco), Cenex, Exxon, Flying J.						
Finished gasoline	1	2	(50)	2	2	2
Blending components	0	0	-	0	(s)	0
Unfinished oils	0	0	-	0	0	0
Liquefied Petro. gases	7	12	(42)	12	12	15
Distillates	2	3	(33)	2	2	4
Residual	(s)	(s)	-	(s)	(s)	(s)
Other products	(s)	1	-	2	5	4
Total products	10	18	44	18	21	25
Total crude	67	63	6	64	54	39
Total crude and products	77	81	(12)	82	75	64

*PAD 4 includes Montana, Idaho, Wyoming, Utah and Colorado; (s) means less than 500 b/d.

PAD 5*

Total crude imports: 266,000 b/d.

Total product imports: 89,000 b/d.

Major sources: Indonesia, Canada, People's Republic of China.

Major importers: Chevron, Shell, Pacific, Unocal.

Finished gasoline	18	21	(14)	21	32	48
Blending components	1	1	-	14	15	12
Unfinished oils	7	2	300	4	5	2
Liquefied Petro. gases	6	10	(40)	11	13	10
Distillates	5	3	66	3	8	10
Residual	24	12	100	7	20	13
Other products	28	19	47	14	23	19
Total products	89	68	31	74	117	116
Total crude	266	175	52	189	182	177
Total crude and products	355	143	46	264	299	293

*PAD 5 includes Arizona, Nevada, California, Oregon, Washington, Alaska and Hawaii.

ALL PADS - U.S. Totals.

Total crude imports: 5,808,000 b/d.

Total product imports: 2,191,000 b/d.

Major sources: see related PAD tables in this section.

Major suppliers: see related PAD tables in this section.

Finished gasoline	363	386	(6)	366	296	381
Blending components	59	58	2	61	68	67
Unfinished oils	346	351	1	280	239	318
Liquefied Petro. gases	179	210	15	190	241	187
Distillates	302	283	7	240	235	200
Residual	610	595	3	553	650	510
Other products	332	251	32	210	221	204
Total products	2,191	2,134	3	1,900	1,950	1,866
Total crude	5,808	5,059	15	4,639	4,111	3,201
Total crude and products	7,999	7,193	11	6,539	6,061	5,067

(a) The summaries at the top of each PAD are total figures for 1989, i.e., imports minus exports; the rest of the figures are total imports.
Source: Energy Information Administration, Petroleum Supply Monthly, Table 17, December 1989, published March 1990.

World Crude Oil Production by Area

(Millions of bbl.)

Year (a)	United States	Canada	Latin America	Western Europe	Middle East	Africa	Asia-Pacific	Total Free World	Communist Nations	Total World
1988	2,979	587	2,303	1,387	5,236	1,828	1,148	15,471	5,519	20,990
1986	3,168	537	2,190	1,395	4,639	1,820	1,177	14,926	5,403	20,329
1984	3,250	516	2,316	1,332	4,128	1,714	1,165	14,421	5,333	19,753
1982	3,157	464	2,256	1,078	4,622	1,630	956	14,162	5,184	19,347
1980	3,146	521	2,036	891	6,735	2,226	1,000	16,556	5,205	21,761

(a) As of Dec. 31 of each year.

Source: American Petroleum Institute, Basic Data Book, January 1990.

World Crude Oil Reserves by Area

(Millions of bbl.)

Year (a)	United States	Canada	Latin America	Western Europe	Middle East	Africa	Asia-Pacific	Total Free World	Communist Nations	Total World
1988	26,825	6,786	121,951	18,557	571,519	56,964	21,367	823,968	83,800	907,768
1986	26,889	6,850	88,755	21,938	401,788	55,194	19,024	620,529	79,250	699,779
1984	28,446	7,075	83,316	24,426	390,381	55,540	18,530	615,713	84,100	699,813
1982	27,858	7,020	78,482	22,924	369,286	57,822	19,756	583,147	85,115	668,262
1980	29,805	6,400	69,490	23,085	362,071	55,148	19,631	565,630	83,300	651,930

(a) As of Dec. 31 of each year.

Source: American Petroleum Institute, Basic Data Book, January 1990.

World Crude Oil Refining Capacity by Area

(Hundreds of b/d)

Year (a)	United States	Other Western Hemisphere	Total Western Hemisphere	Middle East	Africa	Asia-Pacific	Europe	Total Free World	Sino Soviet Bloc	Total World
1988	15,557	8,839	24,396	4,335	2,787	10,065	13,859	55,441	17,798	73,239
1986	15,566	8,677	24,242	3,863	2,524	10,400	13,929	54,958	17,610	72,568
1984	15,659	9,458	24,858	4,053	2,447	10,394	15,655	57,664	17,500	75,164
1982	16,859	9,878	26,733	3,685	1,882	10,902	17,245	60,328	16,873	77,201
1980	18,620	10,717	29,377	3,730	1,698	10,555	20,205	65,525	16,036	81,561

(a) As of Dec. 31 of each year.

Source: American Petroleum Institute, Basic Data Book, January 1990.

World Natural Gas Production by Area

(Billions of cubic feet)

Year (a)	United States	Canada	Latin America	Western Europe	Middle East	Africa	Asia-Pacific	Total Free World	Communist Nations	Total World
1988	—	—	—	—	—	—	—	—	—	—
1987	17,150	3,473	3,355	7,044	2,624	2,026	3,798	39,469	28,743	68,211
1986	16,791	3,168	3,414	6,520	1,823	1,662	3,321	36,698	27,088	63,786
1984	18,230	2,652	3,452	6,795	1,533	1,629	2,530	36,822	23,272	60,094
1982	18,520	2,546	3,072	6,142	1,800	1,170	2,177	35,425	20,258	55,683
1980	20,180	2,668	3,296	6,669	1,221	885	2,558	37,678	21,070	58,748

(a) As of Dec. 31 of each year.

Source: American Petroleum Institute, Basic Data Book, January 1990.

Crude Oil Reserves in 20 Leading Nations

Nation	(Add 000 bbl.)		% of Free World		% of Total World	
	1/1/89	1/1/88	1989	1988	1989	1988
Saudi Arabia	169,970,000	166,980,000	20.6%	20.6%	18.7%	18.8%
Iraq	100,000,000	100,000,000	12.1	12.3	11.0	11.2
Iran	92,850,000	92,850,000	11.3	11.4	10.2	10.4
Abu Dhabi	92,205,000	92,205,000	11.2	11.4	10.2	10.4
Kuwait	91,920,000	91,920,000	11.2	11.3	10.1	10.3
U.S.S.R.	58,500,000	59,000,000	7.1	7.3	6.4	6.6
Venezuela	58,083,900	56,300,000	7.0	6.9	6.4	6.3
Mexico	54,110,000	48,610,000	6.6	6.0	6.0	5.5
United States	26,825,000	27,256,000	3.3	3.4	3.0	3.1
China	23,500,000	18,400,000	2.9	2.3	2.6	2.1
Libya	22,000,000	21,000,000	2.7	2.6	2.4	2.4
Nigeria	16,000,000	15,980,000	1.9	2.0	1.8	1.8
Norway	10,435,000	14,800,000	1.3	1.8	1.1	1.7
Algeria	8,400,000	8,500,000	1.0	1.4	0.9	1.0
Indonesia	8,250,000	8,400,000	1.0	1.4	0.9	0.9
Canada	6,785,514	6,825,000	0.8	0.8	0.7	0.8
India	6,354,200	4,250,000	0.8	0.5	0.7	0.5
United Kingdom	5,175,000	5,200,000	0.5	0.6	0.6	0.6
Egypt	4,300,000	4,300,000	0.5	0.5	0.5	0.5
Oman	4,071,160	4,012,000	0.5	0.5	0.4	0.5
Total Free World	823,967,751	810,144,510	—	—	—	—
Total World	907,767,751	889,340,000	—	—	—	—

Source: American Petroleum Institute, Basic Data Book, January 1990; percentage relationships by NPN.

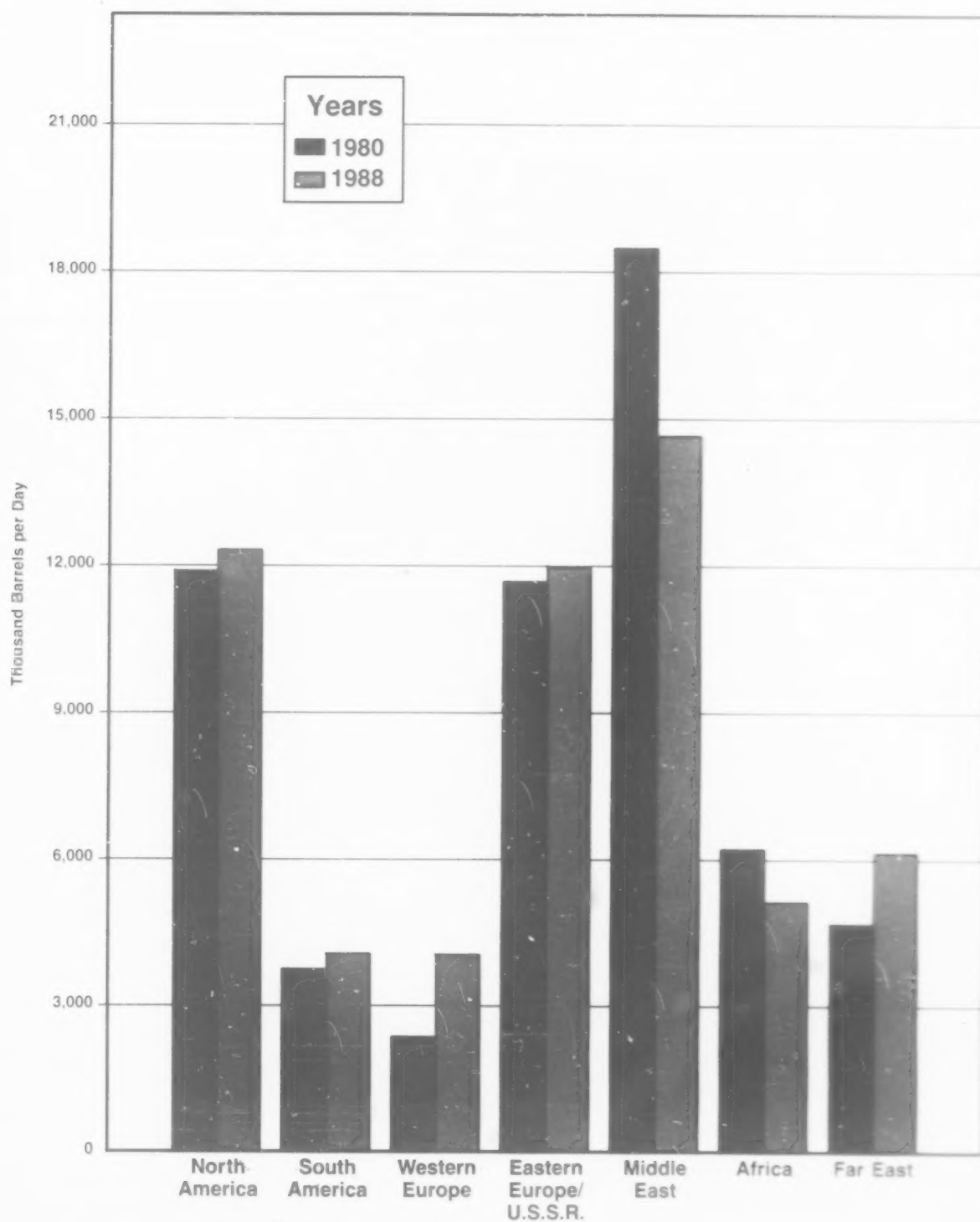
Crude Oil Production in 20 Leading Nations

Nation	Add 000 bbl. 1988		Add 000 bbl. 1989		% of Free World		% of Total World	
	Total	b/d	Total	b/d	1988	1987	1988	1987
U.S.S.R.	4,356,864	11,937	4,354,450	11,930	28.2%	29.3%	20.8%	21.4%
United States	2,979,123	8,162	3,168,852	8,680	19.3	20.5	14.2	15.0
Saudi Arabia	1,887,580	5,171	1,484,455	4,067	12.2	9.9	9.0	7.2
China	1,003,572	2,750	953,745	2,613	6.5	6.4	4.8	4.7
Mexico	953,796	2,613	927,465	2,541	6.2	6.2	4.5	4.6
Iraq	951,234	2,606	757,740	2,076	6.1	5.1	4.5	3.7
Iran	836,310	2,291	894,616	2,451	5.4	6.0	4.0	4.4
United Kingdom	789,096	2,162	853,370	2,338	5.1	5.7	3.8	4.2
Venezuela	608,292	1,667	573,780	1,572	3.9	3.9	2.8	2.8
Canada	587,430	1,609	569,400	1,560	3.8	3.8	2.8	2.8
United Arab Emirates	551,562	1,511	530,710	1,454	3.6	3.6	2.6	2.6
Nigeria	504,714	1,383	469,390	1,286	3.3	3.2	2.4	2.4
Kuwait	495,330	1,357	344,710	1,034	3.2	2.5	2.4	1.8
Indonesia	424,194	1,162	434,715	1,191	2.7	2.9	2.0	2.1
Norway	404,430	1,108	344,195	943	2.6	2.3	1.9	1.7
Libya	385,764	1,057	-	-	3.6	1.8	-	-
Egypt	310,368	850	277,040	759	1.8	1.9	1.5	1.7
India	232,410	637	222,285	609	1.5	1.5	1.5	1.1
Algeria	232,040	636	231,775	635	1.5	1.6	1.1	1.1
Oman	221,430	607	203,305	557	1.4	1.4	1.1	1.0
Total Free World	15,471,435	42,387	14,858,413	40,708	—	—	—	—
Total World	20,990,349	57,508	20,345,823	55,696	—	—	—	—

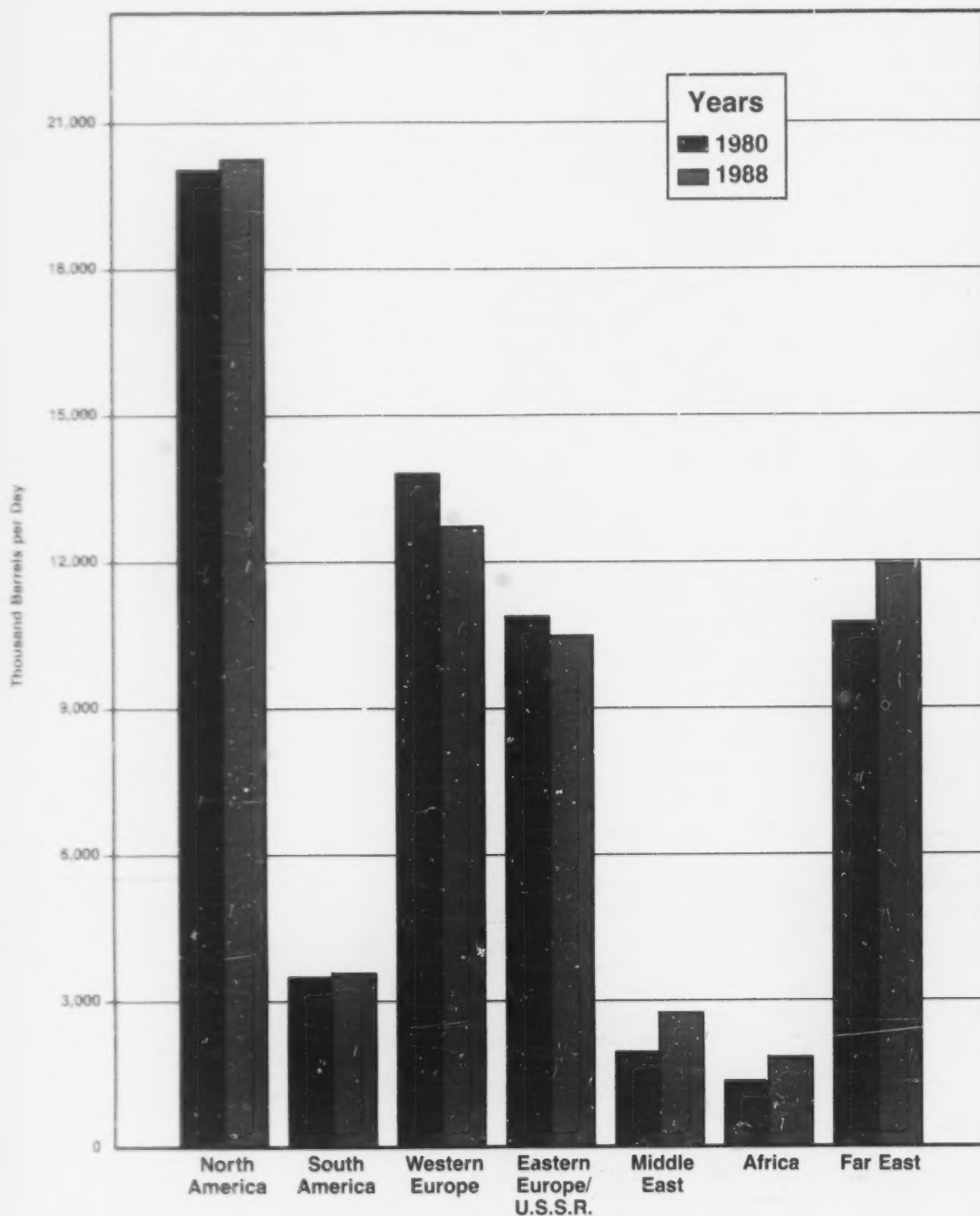
*Not listed in top 20 of 1987. Libya was ranked 15th in 1986.

Source: American Petroleum Institute, Basic Data Book, January 1990; percentage relationship by NPN.

World Crude Oil Production, 1980 & 1988



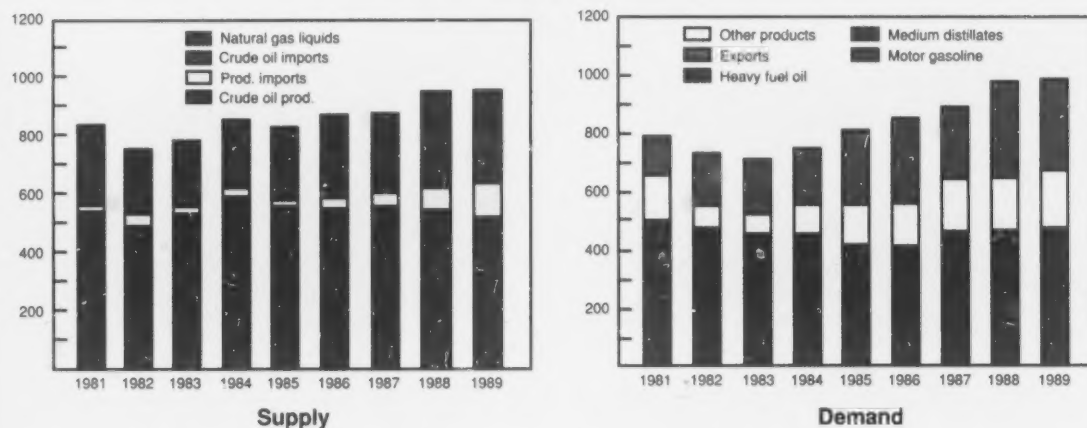
World Petroleum Consumption, 1980 & 1988



Canadian Oil Market Stable in 1989

Petroleum Supply-Demand in Canada

(millions of barrels)



Having reached peak levels for the 1980s in 1988 in both supply and consumption, Canada's petroleum industry settled back slightly last year. It was still a strong performance; overall, the second best of the decade.

On the supply side, crude oil and NGL production and crude and product imports amounted to 923-million bbl. (147-million cubic meters) in 1989, down a smidgeon from the 1988 total of 926-million bbl. Like the United States, Canada is experiencing a growth in imports, with crude and products increasing 5.5% to

a record 232-million bbl. Meanwhile, crude production fell 3.5% to 570-million bbl. in 1989. Canada's petroleum exports dropped 7% to 355-million bbl., but the country remains a net exporter by a comfortable margin.

There was moderate change from 1988 to 1989 in Canadian refined product sales (see table below). Marketers of diesel, light and heavy fuels and lubes and greases had the biggest increases in product sales, while gasoline, aviation turbine and kerosene also increased slightly.

Refined Product Sales in 1989

(Cubic Meters)*

	Aviation Gas	Motor Gas	Aviation Turbine	Kerosene	Diesel	Light Fuel	Heavy Fuel	Lubes & Greases
Newfoundland	4,313	606,650	330,137	34,721	492,843	304,874	797,933	13,040
Prince Edward Island	2,100	182,214	5,007	12,878	71,833	164,182	41,909	2,151
Nova Scotia	1,662	1,135,546	192,971	59,072	642,974	902,189	1,250,760	22,781
New Brunswick	2,778	939,148	35,532	23,895	511,796	455,291	2,301,061	23,479
Quebec	20,643	7,400,630	1,040,889	185,043	3,193,968	2,338,822	2,771,955	157,793
Ontario	38,866	12,970,701	1,603,680	147,921	4,479,281	2,007,331	1,549,905	436,675
Manitoba	17,728	1,400,298	178,584	54,570	865,157	56,944	61,485	38,536
Saskatchewan	11,105	1,723,073	92,431	69,870	1,220,808	56,230	38,724	39,080
Alberta	14,569	4,614,309	688,210	31,208	2,809,834	55,106	37,822	105,505
British Columbia	36,385	3,724,983	941,923	81,448	2,642,146	445,194	1,021,000	107,020
Yukon	4,365	54,690	4,958	8,005	75,640	28,453	0	1,038
Northwest Territories	7,866	38,935	78,252	53,997	155,276	70,067	260	1,687
Total 1989	162,380	34,791,177	5,192,574	762,628	17,161,556	6,884,683	9,872,814	948,765
Total revised 1988	166,026	34,148,678	5,068,062	744,569	16,680,369	6,661,215	8,125,323	928,773

*Cubic meters x 6.2886 = barrels
Source: Statistics Canada

Canadian Oil Companies:

BRANDED SERVICE STATIONS

Company	Total branded retail outlets	Number of Provinces where marketed	Supplied directly	Supplied through jobbers & commission agents	Lessee/Dealer operated	Salary operated	Commission operated	Full-serve only	Self-serve only
C Corp. Inc.	263	3	75	—	—	—	75	69	—
C. Corp (Ontario) Inc.	86	2	—	—	9	3	40	46	4
Canadian Tire Petroleum Div.	177	7	177	—	—	169	9	7	165
Chevron Canada Ltd.	277	1	183	94	165	—	112	118	109
Esso Petroleum Canada (a)	N/A	—	—	—	—	—	—	—	—
Fas Gas Oil Ltd.	136	3	136	—	—	—	136	79	57
Federated Co-operatives Ltd.*	365	4	365	—	**	240	25	305	60
Husky Oil Marketing Co.	509	5	—	—	—	—	—	—	—
Les Petroles Calet Ltée.	50	2	—	—	—	—	—	—	—
Mohawk Oil Co. Ltd.	263	6	263	—	114	74	75	146	44
Petro-Canada Products.	3,381	12	—	—	2,578	167	636	2,381	916
Shell Canada Ltd. (e)	—	—	—	—	—	—	—	—	—
Sunoco Inc. (b)	—	—	—	—	—	—	—	—	—
Sunys Petroleum Inc.	233	2	233	0	74	—	159	208	25
Turbo Resources Ltd.	311	6	284	27	70	0	241	308	4
Ultramar Canada Inc.	1,382	6	1,382	—	1,382	—	—	—	—

* does not include 280 Tempo

** all Tempo are independent resellers

Brand Names of Gasoline and Motor Oils

Gasoline	Motor Oil	Gasoline	Motor Oil	Gasoline	Motor Oil
C. Corp. Inc.				Sunys Petroleum Inc.	
Top Valu	Top Valu		Husky Stratolube	Sunys (r,u,p,diesel)	
Winks Express			Husky Stratoplus	Econobec (r,u,p,diesel)	
Shell			Husky Superlube		
Sunoco			Husky Super Duty		
Petro Canada					
Esso					
Ultramar					
Texaco					
Canadian Tire Petroleum		Mohawk Oil Co. Ltd.		Turbo Resources Ltd.	
Motomaster:	Nugolo	Mohawk (r,u,p,d)	Mohawk Oil Canada Limited	Turbo	Flo-Rite
	Supreme				Turbo
	Formula 2000				Red Ram
Chevron Canada Ltd.		Petro-Canada Products Inc.		Ultramar Canada Inc.	
Chevron (r,u)	Chevron Special	(r,u,p,us,o)	Diesel Tonic	Ultramar	Ultralube
Chevron Supreme (up)	Chevron Supreme		XHD	Sterling	Ultralube Super
Esso Petroleum Canada			Maximum	XL	Ultralube Super Plus
Esso (r)	HD		Super Plus	Gillies Guy	Champion
Esso 2000 (ur)	HDX		Maximum Plus	Champion	
Esso Extra Unleaded (up)	Protec Extra		Maximum Supreme		
	Protec Ultra				
Fas Gas Oil Ltd.		Shell Canada Ltd.		KEY	
	Hi-Performance	Shell (r,u,p)	Shell X100	Gasoline:	
		Beaver (r,u,p)	Shell TLO	(r) Regular	
			Shell Extrema	(p) Premium	
			Rotella	(ur) Unleaded	
				(up) Unleaded Premium	
Federated Co-operatives Ltd.		Sunoco, Inc.		Motor Oils: Brand names are listed	
Sonic (r,u,p)	Sonic Silver	Sunoco Regular (r)	CAM2	lowest-price grade first.	
Tempo (r,u,p)	Sonic Gold	Sunoco 1/2 & 1/2 Leaded (r,u,p)			
		Sunoco Premium Leaded (r,u,p)			
		Sunoco Regular Unleaded (ur)			
		Sunoco 1/2 & 1/2 Unleaded (ur,up)			
		Sunoco Premium Unleaded (up)			
Husky Oil Marketing Co.		Pronto (r,u,p)			
Husky (r,u,p,d)	Husky Heavy Duty				
	Husky Heavy Duty Special				

How Distribution is Organized

BRANDED JOBBERS/COMMISSION AGENTS					BULK PLANTS				TERMINALS			
SELLING ...					COMPANY OPERATED ...				COMPANY OPERATED ...			
Full-serve/ Self-serve	Total	Gasoline only	Fuel Oil only	Gasoline and Fuel Oil	Total	Salary operated	Commission operated	Jobber operated	Total	Salary operated	Commission operated	Jobber operated
6	200	200	—	—	0	—	—	—	0	—	—	—
2	0	—	—	—	0	—	—	—	0	—	—	—
5	—	—	—	9	—	—	—	—	—	—	—	—
50	—	277	—	—	36	—	36	0	2	2	0	0
—	N/A	—	—	—	N/A	—	—	—	N/A	—	—	—
—	25	25	—	—	290	285	5	0	1	1	—	—
73	—	—	—	75	—	—	—	—	—	—	—	—
84	314	—	—	314	396	11	385	0	30	23	7	0
1	159	159	0	0	0	—	—	—	0	—	—	—
0	—	0	0	57	36	0	33	3	0	0	0	0

Branded Retail Outlets in Canada

Company	Total branded retail outlets	Number of Provinces	Newfoundland	Nova Scotia	New Brunswick	Quebec	Ontario	Prince Edward Island	Manitoba	Saskatchewan	Alberta	British Columbia	Northwest Territories	Yukon
C. Corp. Inc.	263	3	—	—	—	137	67	—	—	—	59	—	—	—
C. Corp (Ontario) Inc.	86	2	—	—	—	1	85	—	—	—	—	—	—	—
Canadian Tire Petroleum Division	177	7	—	—	4	35	115	—	6	3	12	2	—	—
Chevron Canada Ltd.	277	1	—	—	—	—	—	—	—	—	—	277	—	—
Esso Petroleum Canada (a)	N/A	—	—	—	—	—	—	—	—	—	—	—	—	—
Fas Gas Oil Ltd.	136	3	—	—	—	—	—	—	—	33	93	10	—	—
Federated Co-operatives Ltd.	365*	4	—	—	—	—	—	—	62	225	50	28	—	—
Husky Oil Marketing Co.	509	5	—	—	—	—	83	—	39	59	202	126	—	—
Les Petroles Calet Ltée.	50	2	—	—	—	47	3	—	—	—	—	—	—	—
Mohawk Oil Co. Ltd.	263	6	—	—	—	3	—	—	29	37	97	94	—	3
Petro-Canada Products	3,381	12	28	104	85	673	1,221	12	221	262	385	390**	—	—
Shell Canada Ltd.	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunoco Inc. (b)	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sunys Petroleum Inc.	233	2	—	—	—	29	204	—	—	—	—	—	—	—
Turbo Resources Ltd.	311	6	—	—	—	—	1	—	22	72	167	48	2	—
Ultramar Canada Inc.	1,382	6	251	85	37	847	146	16	—	—	—	—	—	—

(a) Did not respond; data is from 1986.

(b) Did not respond; data is from 1987.

(c) Includes outlets in Yukon and Northwest Territories.

(d) Includes Beaver—not a subsidiary, but Shell Canada's wholly-owned 'Pribrand' retail outlets.

* does not include 280 Tempo

** includes Yukon & NW Territories

Gasoline Shares by Key Categories—1989

A new study of Canadian retail gasoline market shares was initiated in 1985 by MPSI Inc., Tulsa, Okla., a company specializing in computer software and information services in addition to market research and planning. Now, MPSI has released its updated 1989 study.

Data for both 1989 and 1988 are presented in the table below to provide an overview of trends within the various gasoline marketing segments. Also, average gallonage totals are shown in both liters and U.S. gallons. Refer to the companion market share study for the U.S. in the Retail section for a comparison

between the two countries.

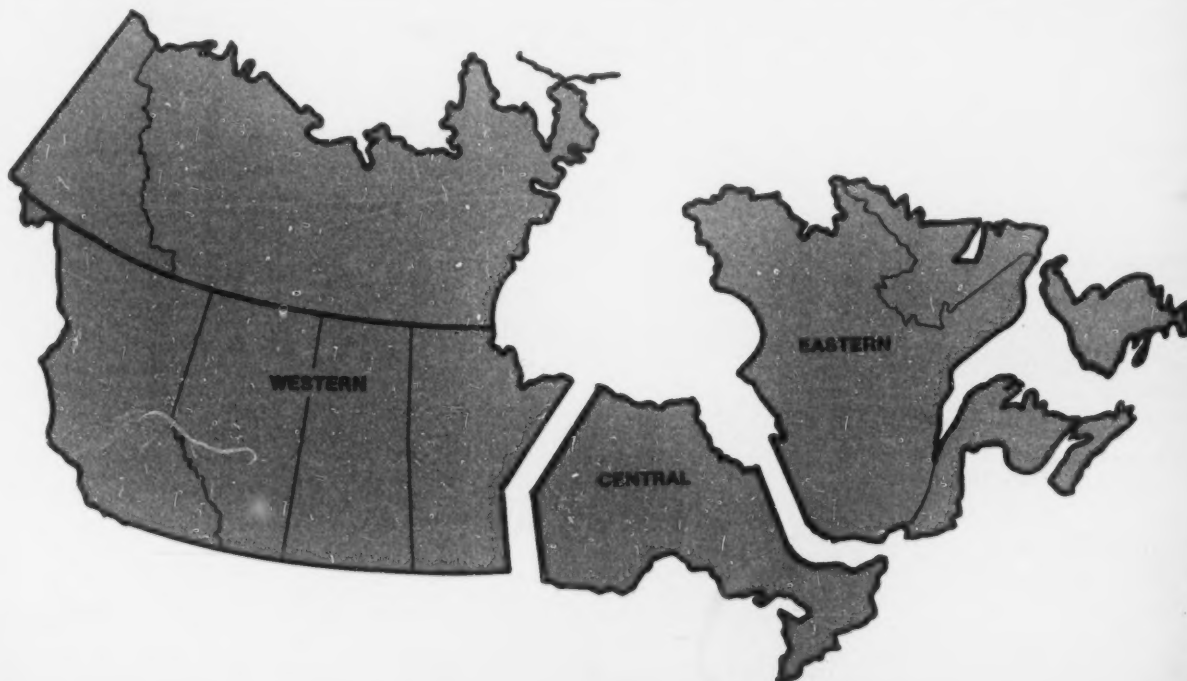
The study presents market shares and percentages of outlets on both a national and regional basis for conventional service stations, gasoline pumpers, convenience stores that sell gasoline, plus a general category of "others" including car washes, garages and other facilities where gasoline is secondary.

This study is concentrated in Canada's metropolitan areas, where most gasoline is marketed. It does not count rural and highway vendors which, while important to the industry, do not add substantially to overall consumption data.

Canadian Regional and National Market Shares

	Service Stations		Pumpers		Convenience Food Stores		Others		Total	
	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988
Eastern Region										
• % of Outlets	46.4	47.4	26.6	26.3	10.9	10.5	16.1	15.8	100.0	100.0
• % of Volume	43.3	44.0	40.9	40.6	8.2	7.9	7.6	7.5	100.0	100.0
• Avg. Monthly Volume (Liters)*	133,022	133,918	219,561	222,573	107,704	107,498	66,776	67,983	142,574	144,013
• Avg. Monthly Volume (U.S. gal.)	35,191	35,428	56,085	58,882	28,493	28,439	17,666	17,985	37,718	38,097
Central Region										
• % of Outlets	49.1	50.6	35.2	34.5	4.0	3.0	11.7	11.9	100.0	100.0
• % of Volume	44.2	46.6	48.6	46.8	2.7	2.0	4.5	4.6	100.0	100.0
• Avg. Monthly Volume (Liters)*	193,283	198,345	296,297	292,760	144,233	142,705	83,034	82,452	214,719	215,350
• Avg. Monthly Volume (U.S. gal.)	51,133	52,472	78,385	77,450	38,157	37,753	21,967	21,813	56,804	56,971
Western Region										
• % of Outlets	36.8	37.1	44.0	44.3	8.8	8.0	10.4	10.6	100.0	100.0
• % of Volume	35.6	35.7	56.0	56.2	4.8	4.5	3.6	3.6	100.0	100.0
• Avg. Monthly Volume (Liters)*	185,786	186,768	244,160	246,957	103,939	108,643	67,429	67,027	191,957	194,494
• Avg. Monthly Volume (U.S. gal.)	49,150	49,410	64,593	65,333	27,498	28,741	17,838	17,732	50,782	51,442
Total Canada										
• % of Outlets	44.8	45.8	34.7	34.3	7.7	7.0	12.8	12.9	100.0	100.0
• % of Volume	41.5	42.7	48.7	47.9	4.7	4.3	5.1	5.1	100.0	100.0
• Avg. Monthly Volume (Liters)*	170,012	172,837	257,658	258,044	113,597	113,672	72,509	72,869	183,516	185,073
• Avg. Monthly Volume (U.S. gal.)	44,977	45,724	68,163	68,266	30,052	30,072	19,182	19,278	48,549	48,961

Source: MPSI Inc., Tulsa, Oklahoma.



Canadian Retail Gasoline Prices Are Now 60% Higher Than U.S.

Retail postings for gasoline have been on the upswing for both the United States and Canada, but Canadian pump prices increased at a faster rate last year than in the U.S.

According to the February 1990 Petroleum Product Market Report published by Energy, Mines and Resources Canada (EMR), the typical Canadian motorist paid an average of about \$1.73/ (U.S. dollars) for a gallon of gasoline in January 1990. That's about 65¢ or 60% higher than the price paid per gallon by American motorists in 1989 (see bar chart). The figures represent major city averages for all grades and type of service in both countries.

The spread between Canadian and U.S. pump prices jumped by 12.2¢/gal. last year, with a big chunk of the increase derived from a boost in federal and provincial sales taxes of 2.65¢/gal. and an increase of 3.2¢/gal. in excise taxes for unleaded grade gasolines and 6.4¢/gal. for leaded fuel.

Three-quarters (76%) of the price differential between Canada and the U.S. is attributable to the higher Canadian taxes. Taxes now account for an average of 71.3¢ of every gallon sold.

It was not always thus. In a separate report, "1980s: The Decade In Review," EMR points out that Canadian gasoline prices were actually lower in 1979 than in the U.S. By the end of 1989, however, the average Canadian price exceeded the U.S. prices by 60%, and the gap was the widest of the decade. The major cause: Between 1979 and 1989, Canadian provincial and federal fuel taxes rose almost four times as fast as in the U.S.

Another interesting comparison between the two countries are the disparities between full and self service prices. In the U.S., the average spread between full and self service is 29¢/gal. In Canada, however, the difference is on 3.2¢/gal. This would help explain why almost 50% of Canadians patronize full service pumps, compared to only 20% in the U.S.

EMR's review of developments in the 1980s showed that the total number of outlets in Canada's 10 major centers declined by only 3.4% during the decade and actually increased by a total of 3% over the last three years. This increase coincided with a growth in gasoline demand during the period.

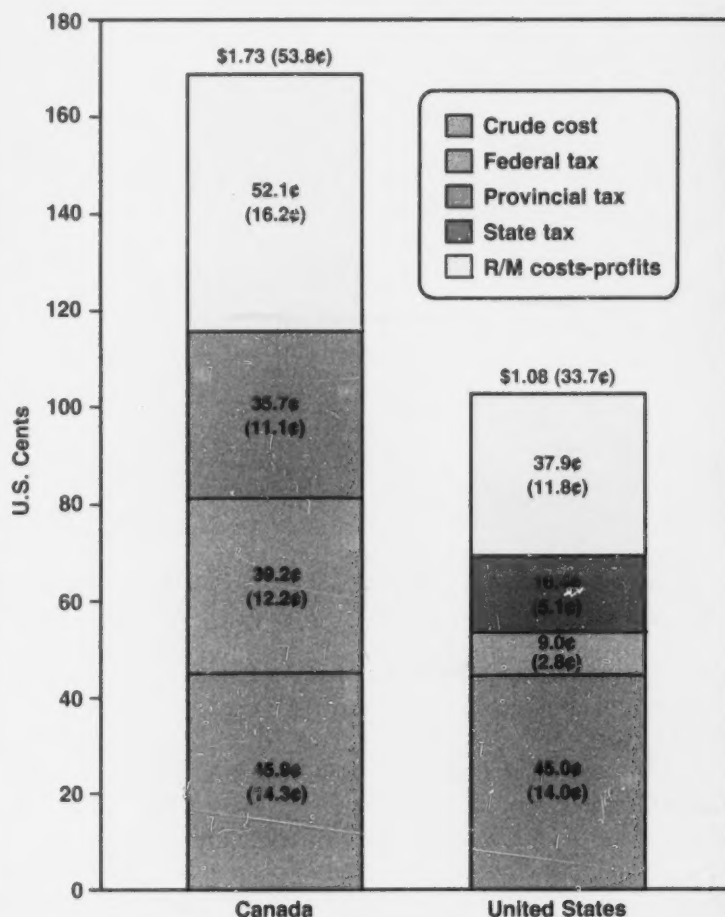
A major shift has also taken place in the retail outlet market share, EMR reports. While major refiners reduced their outlets by 12% over the 10-year period, independent marketers increased their number of stations by 54%. As a result, the independent's outlet share grew from 13% in 1979 to 20% in 1989.

The self serve outlet population is also growing in Canada, from less than 30% of total outlets in 1979 to 41% in the 10 major centers in 1989. The majors have led the conversion to self service, with over 50% of their outlets in that category. Independent marketers, on the other hand, have been slow to convert and only 18% of their outlets are

now self serve.

"One of the marketing strategies often used by independents is to offer full serve gasoline at a price slightly below the self serve price of refiner-branded stations," EMR reports. "Many of the new outlets opened by the independent sector in recent years have offered full service."

Canada vs. U.S.—Motor Gasoline
Average Retail Prices, All Grades—January, 1990
(U.S. cents/gal.—Canadian cents/liter shown in parenthesis)*



*Exchange rate - January 1990 = 1.1714

Canadian Statistics

Motor Vehicle Registrations 1988

	Passenger Cars	Trucks	Buses	Motorcycles	Others	Total Vehicles	Trailers	Off-road		Licensed gasoline outlets
								Snowmobiles	Other	
Newfoundland	198,556	89,028	1,200	10,513	7,467	307,049	32,058	69,600	15,427	..
Prince Edward Island	59,113	21,129	437	1,670	182	82,531	3,083	432	513	..
Nova Scotia	348,173	145,127	1,692	16,560	379	512,067	51,009	14,162	25,729	..
New Brunswick	301,698	133,179	..	10,340	5,395	451,562	56,852	..	20,986	1,240
Quebec	2,796,642	464,794	14,205	72,302	61,185	3,432,035	714,922	80,104	255,579	..
Ontario	4,577,803	1,059,092	28,341	133,580	..	5,804,105	1,032,887	285,744	68,634	7,777
Manitoba	535,985	220,523	162	13,272	34	769,976	103,959	20,571	207	..
Saskatchewan	460,969	276,200	4,345	6,184	7,560	755,350	99,053	6,381	..	..
Alberta	1,141,705	630,534	9,160	37,842	..	1,820,141	373,084	15,077	18,422	..
British Columbia	1,634,863	649,519	..	66,055	..	2,350,437	271,098	51,597	..	..
Yukon	9,028	15,292	181	812	1,764	27,077	3,614	481	..	..
Northwest Territories	21,466	1,615	111	628	111	23,931	2,753	1,567	1,245	..
Canada	12,086,001	3,706,032	59,834	369,758	84,077	16,336,261	2,744,372	545,716	406,742	9,017

NB: e estimated

"Off-road other" includes farm tractors, construction equipment etc.

.. figures not available

Source: All tables this page from Statistics Canada.

Automobiles Per Household 1989

estimates in thousands

	Households	Total Households with Vehicles	Households with automobiles				without autos	Vans or trucks	
			Total	1 auto	2 autos	3 or more autos		with 1	Households with 2 or more
Newfoundland	167	134	110	89	19	—	56	51	—
Prince Edward Island	44	39	36	26	9	—	8	13	—
Nova Scotia	309	260	241	176	55	10	68	77	10
New Brunswick	242	204	186	141	40	5	56	76	7
Quebec	2,511	1,983	1,879	1,380	427	73	633	370	22
Ontario	3,408	2,859	2,723	1,724	819	180	685	682	60
Manitoba	383	320	292	208	68	16	90	105	18
Saskatchewan	358	312	282	195	68	20	76	126	32
Alberta	865	789	714	460	194	60	151	283	77
British Columbia	1,189	1,030	952	646	239	67	237	360	44
Canada 1989	9,477	7,931	7,416	5,044	1,938	434	2,060	2,142	274

New Motor Vehicle Sales

	Cars		Commercial Vehicles			
	Total, new motor vehicles	Passenger cars	Comm. vehicles	North America	Other Countries(1)	Other Countries(1)
1989	1,483,885	993,312	490,573	674,302	245,764	73,246
1988	1,565,501	1,056,310	509,191	724,733	243,835	87,742
1987	1,533,637	1,065,093	468,544	700,930	243,288	120,875

(1) Excludes Japanese and North American manufactured vehicles.

Factory Sales of Auto Batteries

	1989	\$
Replacement:		
Automotive & Heavy-duty Commercial	3,183,457	163,021,333
Other batteries (incl marine, recreational vehicle and railroad diesel starting)	162,271	8,887,749
For Direct Motive Power:		
Large cells (incl railroad & fork lift)	202,629	28,495,262

Drivers' Licenses 1988

	Operators (drivers & chauffeurs)	Temporary (instructor permits)
Newfoundland	303,685	8,143
Prince Edward Island	81,863	..
Nova Scotia	555,018	13,263
New Brunswick	440,882	25,950
Quebec	3,938,301	..
Ontario	6,118,112	307,748
Manitoba	765,494	..
Saskatchewan	647,445	..
Alberta	1,821,100	105,275
British Columbia	2,441,635	..
Yukon	30,282	103
Northwest Territories	10,814	1,499
Canada	17,154,631	461,981

.. Figures not available.

Principal Heating Fuels in 1989 (000 Households)

	Oil		Piped Gas	Bottled Gas	Electricity	Other	Wood	Total Households
Newfoundland	61	—	—	—	70	—	36	167
Prince Edward Island	34	—	—	—	—	—	9	44
Nova Scotia	197	—	4	—	65	5	38	309
New Brunswick	80	—	—	—	120	—	41	242
Quebec	521	178	—	—	1,710	—	100	2,511
Ontario	573	2,037	26	—	702	—	68	3,408
Manitoba	23	219	—	—	129	—	8	383
Saskatchewan	26	299	4	—	17	—	..	358
Alberta	15	818	18	—	7	—	..	865
British Columbia	153	649	—	—	323	—	55	1,189
Canada	1,682	4,199	65	—	3,143	19	369	9,477

Note: Data from a sample survey only.

— amount too small

... figures not applicable

"Other" includes Coal and Coke.

LPG Sales by States and Uses—1988

(Add 000 gal.)

	Residential and Commercial	Chemical	Industrial (1)	Engine Fuel	Utility Gas	Farm	Other (2)	Total (3)
Alabama	154,741*	w	12,496	10,847	w	22,951	1,728	203,480
Alaska	8,792	—	w	896	—	w	w	11,930
Arizona	44,963	—	11,358	7,102	w	3,794	2,831	71,827
Arkansas	104,765	w	4,526	8,898	w	41,522*	3,409	163,669
California	304,251	w	316,585	97,448*	w	38,090*	22,560*	837,107
Colorado	66,851	—	19,465*	5,262	—	10,564	1,753	109,700
Connecticut	38,088	w	15,794	2,815	w	2,501	1,946*	64,580
Delaware	27,970	w	3,063*	564	—	7,748	w	43,199
Florida	249,794*	—	32,431	20,226	w	19,451	6,295	344,946
Georgia	191,043	w	31,318*	12,639	w	51,761	3,327*	292,240
Hawaii	w	—	—	w	—	w	w	7,999
Idaho	15,512*	—	7,113	3,964	—	2,624	1,467	30,689
Illinois	239,237	158,990	42,031	47,691	22,706	107,408	4,884*	626,610
Indiana	265,750	140*	10,998	21,164	w	88,642	5,947*	403,965
Iowa	241,114	w	10,999	6,520	—	180,380	4,577*	424,779
Kansas	112,599	79,044	29,649	19,925	w	53,645	22,225*	440,305
Kentucky	168,414	w	113,134*	10,362	w	20,969	766	330,012
Louisiana	53,735	521,808	302,921	9,770	w	8,506	6,289*	958,783
Maine	46,422	w	14,291	2,752	3,360	209	w	68,253
Maryland & D.C.	46,080	—	14,840	5,299	—	6,153	500*	72,979
Massachusetts	68,522	—	11,336	5,709	13,055	643	1,160*	100,964
Michigan	508,809	w	64,110	48,964	w	41,842	80,332*	832,585
Minnesota	223,216	—	28,534	10,541	w	78,333	1,359*	343,762
Mississippi	116,079	w	18,188	16,161	—	17,107	927*	170,510
Missouri	303,446	w	27,633	14,598	w	61,116	2,226*	410,148
Montana	34,054	w	9,705	4,725	—	1,150	2,842	52,903
Nebraska	93,814	w	7,739	7,278	—	116,320	156	225,479
Nevada	32,677	—	7,854	2,353*	—	1,714	w	46,954
New Hampshire	69,514	—	8,538	1,338	w	28	w	90,831
New Jersey	69,311	116,855*	19,854	8,151	w	854	4,427*	263,048
New Mexico	50,738	w	4,728	8,711	—	2,586	841	67,582
New York	190,754	w	15,136	11,295	w	6,753	1,756*	226,611
North Carolina	184,222	w	44,109	13,742	891	94,664	2,931*	341,971
North Dakota	58,952	—	7,439	2,282	w	22,453	719	92,014
Ohio	312,747	—	147,409*	49,465	w	58,852	6,637*	581,341
Oklahoma	103,856	w	38,556	14,504	w	36,025	1,763*	242,701
Oregon	16,854	—	18,304*	21,780	—	5,913	3,786	66,488
Pennsylvania	121,085	w	71,566*	16,348	1,585	22,955	8,841*	243,484
Rhode Island	13,528	—	5,020	1,909	w	138	w	23,842
South Carolina	101,091	w	22,731	7,975	w	18,560	2,111	152,734
South Dakota	74,168	—	2,147	2,727	—	20,155	1,808	101,005
Tennessee	137,515	w	16,987	20,807	w	8,061	2,689*	187,459
Texas	346,372	4,983,733	64,080	55,624	24,618	66,414	6,088*	5,550,190
Utah	23,726*	w	8,946*	5,985*	w	2,205	w	51,303
Vermont	46,506	—	1,424	1,017	—	127	w	50,353
Virginia	91,587	w	30,731*	9,089	w	29,999	22,831*	185,097
Washington	27,900	—	30,726	29,942	—	6,285	5,507	100,360
West Virginia	17,188	w	3,203	2,064	w	2,927	w	44,375
Wisconsin	273,753	—	18,575	19,214	w	53,933	8,436*	374,336
Wyoming	36,899*	w	20,979	4,733*	w	3,477	3,217	80,038
U.S. Total	6,148,583	6,057,465	1,803,392	714,778	200,365	1,431,025	451,741	16,807,500

* Propane only; butane withheld

w—Data withheld to avoid disclosing reports for individual companies. These reports included in totals.

(1) Includes refinery fuel.

(2) Includes secondary recovery of petroleum and synthetic natural gas feedstock.

(3) API data on LP-gas refinery inputs is used in determining LP-gas production/sales in preference to the volume reported by EIA.

Source: National Propane Gas Assn. and API.

LPG Sales Trends in Recent Years ^(a)

Major Domestic Markets (Add 000,000 gal.)

Year	Total U.S. Sales		Residential-Commercial		Chemical		Internal Combustion		Industrial		Farm	
	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change	Vol.	% Change
1988	16,807	4.0%	6,149	8.4%	6,057	(4.0%)	715	(0.4%)	1,803	39.4%	1,431	(1.2%)
1987	16,157	12.8	5,671	0.1	6,307	47.8	718	(13.5)	1,293	(3.6)	1,459	(10.7)
1986	14,325	(5.0)	5,607	(3.2)	4,267	(0.9)	821	(12.8)	1,341	3.2	1,634	(4.2)
1985	15,080	(0.3)	5,794	11.4	4,307	4.8	942	1.0	1,299	(31.2)	1,706	2.6
1984	15,129	10.5	5,203	(14.6)	4,109	26.7	951	(30.2)	1,888	54.7	1,663	40.7
1983	13,688	(1.6)	6,090	(1.5)	3,244	(3.5)	1,362	9.8	1,220	(6.9)	1,183	(8.0)
1982	13,915	(3.3)	6,180	(2.1)	3,362	(3.2)	1,240	9.7	1,310	(5.0)	1,285	(12.1)
1981	14,395	(3.8)	6,310	(3.4)	3,474	(3.1)	1,130	3.6	1,380	(10.9)	1,463	(4.4)
1980	14,969	(8.9)	6,531	(4.9)	3,584	(11.3)	1,090	4.3	1,548	(20.2)	1,529	(15.4)
1979	16,432	9.4	6,871	1.2	4,043	12.7	1,045	5.5	1,940	44.8	1,764	—
1977	15,508	-3.2	7,169	-2.0	3,578	-12.4	1,145	-2.1	1,044	—	2,573	7.5
1975	15,200	-6.8	7,020	-2.9	4,172	-23.0	1,162	-11.3	1,082	1.2	1,763	38.3
1970	15,271	26.6	7,569	41.6	5,003	24.8	1,336	11.9	897	32.1	467	125.6
1965	11,434	33.7	5,346	26.5	4,008	54.6	1,194	33.0	679	13.9	207	-23.0
1960	8,579	40.1	4,225	50.8	2,593	36.5	898	37.7	596	13.7	269	9.3

This is as far back as the restated API/LPGA data go on sales trends. The figures below are Energy Information Administration data and are not essentially comparable to the restated data above. In the data below, the last column was for "all other uses" instead of farm consumption.

(e) In 1984, Energy Information Administration suddenly terminated collection of LPG sales data for budgetary reasons. American Petroleum Institute, Liquefied Petroleum Gas Assn. and others began a cooperative effort to provide the missing data annually. The 1983 and 1984 data were published in March, 1986. The new information is based on EIA data, plus API and LPGA, and are restated for the years 1979 through 1984. Utility gas, refinery fuel and miscellaneous uses are included in U.S. totals but are not stated separately. Source: NPGA and API.

LPG Sales Reach New Peak In 1988 —Industrial Consumption Shows The Biggest Jump

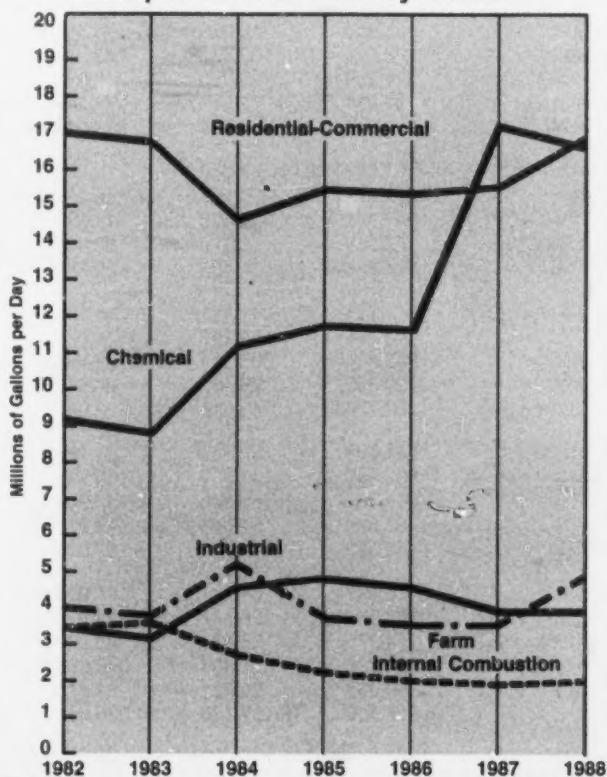
Led by a 40% increase in industrial sales, consumption of liquefied petroleum gas (LPG) continued on an upswing during 1988, moving up 4% to a total of 16.8-billion gal. for the year. The 1988 total represents a record sales year for the industry.

The strongest demand for LPG occurred in the industrial sector, with volume rising from 1.3-billion gal. in 1987 to 1.8-billion gal. in 1988. Demand from residential/commercial customers was also up a healthy 8.4% to 6,147-billion gal.

While LPG sales were up overall in 1988, some market segments were down slightly for the year. Chemical LPG use was down by 4% following a huge 47.8% increase the year before.

In the table above, LPG used in refineries is included in industrial consumption. Other secondary uses are lumped together in the U.S. total.

Principle Uses of LPG by Sector



LPG Sales by States, 1982-'88

(Add 000 gal.)

	1988	1987(2,3,4)	1986(2,3,4)	1985(2,3)	1984(2,3)	1983(1)	1982(1)
Alabama	203,460	199,719	175,072	174,219	178,075	206,881	213,548
Alaska	11,930	11,799	13,300	14,889	w	24,783	36,139
Arizona	71,827	81,899	82,649	76,034	66,727	73,890	73,127
Arkansas	163,669	151,705	167,503	176,381	168,904	190,425	193,913
California	837,107	760,059	226,324	776,882	739,859	638,197	625,100
Colorado	109,700	93,217	89,478	105,256	103,705	167,763	225,710
Connecticut	64,580	61,194	46,383	51,680	51,282	54,967	59,244
Delaware	43,199	36,717	33,084	41,825	49,652	43,007	39,365
Florida	344,946	351,349	431,608	399,436	347,271	396,833	378,633
Georgia	292,240	259,010	274,184	291,335	263,364	288,293	283,259
Hawaii	7,999	7,427	6,712	6,296	w	23,140	37,757
Idaho	30,689	25,367	30,718	36,230	31,815	39,089	44,525
Illinois	626,610	724,026	764,188	788,693	794,966	624,976	613,051
Indiana	403,965	390,877	329,913	328,805	357,416	321,871	282,080
Iowa	424,779	375,396	588,186	591,080	528,416	441,185	408,322
Kansas	440,305	321,476	212,224	611,981	756,234	345,937	273,425
Kentucky	330,012	333,929	270,554	284,430	260,962	214,026	218,674
Louisiana	958,783	848,555	896,539	952,434	982,522	236,384	202,029
Maine	68,253	51,248	42,465	26,533	22,935	33,096	38,113
Maryland & D.C.	72,979	69,569	59,584	75,501	96,840	89,809	77,805
Massachusetts ...	100,964	103,691	94,715	71,752	65,990	88,042	105,076
Michigan	832,585	817,843	801,192	720,361	484,763	431,990	327,955
Minnesota	343,762	316,810	397,852	356,330	333,725	313,466	297,694
Mississippi	170,510	153,275	147,132	208,514	218,242	225,201	233,627
Missouri	140,148	362,524	384,048	372,837	340,805	411,025	455,980
Montana	52,903	50,973	63,384	61,597	49,258	62,941	77,359
Nebraska	225,479	199,576	163,284	176,763	149,236	156,875	180,572
Nevada	46,954	39,855	45,898	47,390	36,366	40,072	38,652
New Hampshire ..	90,831	82,561	71,272	64,713	50,017	59,096	64,583
New Jersey	263,048	252,581	207,911	232,104	264,907	111,901	124,038
New Mexico	67,582	67,733	71,050	140,102	153,130	158,873	154,427
New York	226,611	221,553	208,275	207,808	208,193	262,584	245,749
North Carolina ...	341,971	358,596	314,373	323,396	299,367	282,743	275,717
North Dakota ...	92,014	88,589	89,402	26,811	31,464	47,613	66,273
Ohio	581,341	534,490	520,397	603,114	504,464	662,365	867,725
Oklahoma	242,701	241,441	280,609	400,132	272,150	249,347	260,694
Oregon	66,488	64,205	71,896	67,666	60,694	68,683	64,582
Pennsylvania ...	243,484	205,314	186,764	228,144	239,876	225,533	222,533
Rhode Island	23,842	26,112	24,500	20,888	12,962	15,338	15,699
South Carolina ...	152,734	145,110	122,967	134,045	108,489	125,485	127,860
South Dakota	101,005	139,392	104,189	86,254	69,586	88,814	101,433
Tennessee	187,459	146,307	166,793	149,979	137,847	138,024	116,009
Texas	5,550,190	5,556,446	3,730,949	3,749,674	4,006,334	1,000,960	1,048,020
Utah	51,303	51,043	48,993	60,931	62,630	66,121	71,663
Vermont	50,353	44,281	37,026	33,848	28,321	38,814	41,955
Virginia	185,097	165,871	141,903	162,529	157,263	113,591	132,161
Washington	100,360	106,532	94,972	88,627	92,533	96,114	83,408
West Virginia	44,375	38,622	38,200	35,663	15,031	22,178	26,978
Wisconsin	374,336	321,334	346,983	361,689	364,777	337,044	280,861
Wyoming	80,038	99,922	67,828	76,241	75,340	88,071	120,004
Totals	16,807,500	16,157,120	14,325,445	15,079,822	14,789,925	10,443,456	10,553,086

w-Data withheld to avoid disclosing reports for individual companies. These reports included in totals: (1) Does not include chemical feedstock use; (2) Does include chemical feedstock use; (3) API LP-sales survey does not include LP-gas export sales. Also, API data on LP-gas refinery inputs is used in determining LP-gas production/sales in preference to the volume reported by EIA, see page 3; (4) Significant changes in some states from 1985 and earlier LP-gas sales are based on additional information furnished to API by natural gas liquids pipeline companies.

Source: NLPGA and API.

Where LPG Was Used in 1988



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Lube Sales Dip Slightly in 1989

Preliminary reports from the National Petroleum Refiners Assn.'s annual lubricants survey indicates that sales were off 1.6% in 1989. This was the second consecutive year of slippage. Preliminary estimates for 1988 had indicated an increase of 1.5%, but these findings were revised downward to a minus one-tenth of one percent in subsequent reports.

The NPRA report does not give volumes, only indexes and percentages which are based on the reports of participating companies. To preserve the confidentiality aspects of company sales, the reports are given to an independent auditor who converts them into indexes on an industry-wide basis.

The product categories, as defined by NPRA, are these: automotive oil—engine oils, automatic transmission fluids, gear oils and aviation oils; industrial oil—industrial engine oils, metalworking fluids, process oils and general industrial oils; grease—both automotive and industrial greases.

All finished lubricants are included in the NPRA totals. Not included, however, are exports and lube base stocks sold for further blending into finished lubricants.

NPRA stated that the data reflect the sales of the participating companies only. Sales of finished lubricants by other companies (commonly known as independent compound blenders) are not covered.

For its categories, NPRA used 55.5% of the sales for automotive oils, 42.3% for industrial oils, and 2.2% for greases.

Quarterly Indexes on Lubricant Sales

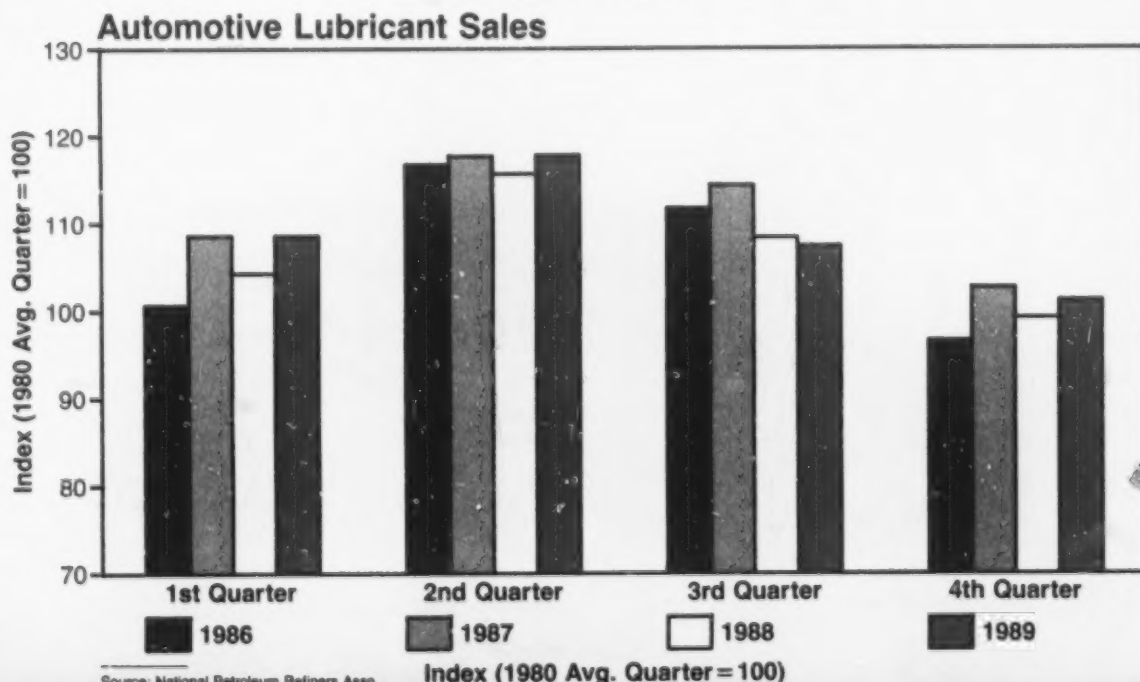
	Quarters				Full Year
	1	2	3	4	
1989 (p)	103.2	109.0	102.0	97.9	103.0
1988 (r)	102.5	110.5	107.6	98.3	104.7
1987	101.2	108.5	108.6	101.3	104.9
1986	100.4	107.2	104.4	93.7	101.4
1985	99.5	107.7	103.5	95.4	101.5
1984	103.1	108.5	106.2	97.5	103.8

Percentage Changes by Products and Quarters

1989 vs. 1988 (p)	Quarters				Full Year
	1	2	3	4	
Automotive	3.9%	2.4%	-0.6%	2.3%	1.9%
Industrial	-3.5	-6.2	-10.3	-3.3	-5.9
Grease	-5.2	-11.8	-18.3	-13.9	-12.7
Total	0.7	-1.4	-5.2	-0.4	-1.6
1988 vs. 1987 (r)	Quarters				Full Year
	1	2	3	4	
Automotive	-3.6%	-1.9%	-5.4%	-3.2%	-3.5%
Industrial	8.6	7.7	5.0	-2.5	4.6
Grease	5.1	6.6	11.3	-2.4	5.1
Total	1.3	1.9	-0.9	-2.9	-0.1
1987 vs. 1986	Quarters				Full Year
	1	2	3	4	
Automotive	6.1%	0.5%	1.8%	6.2%	3.4%
Industrial	-6.0	2.9	8.7	11.4	4.0
Grease	-9.6	-8.0	-13.5	-0.5	-8.0
Total	0.7	1.2	4.0	8.1	3.4
1986 vs. 1985	Quarters				Full Year
	1	2	3	4	
Automotive	-4.1%	-3.2%	-1.3%	-1.9%	-2.7%
Industrial	8.8	4.4	4.0	-2.0	3.8
Grease	-1.6	-8.3	4.1	3.8	-0.6
Total	0.9	-0.5	0.8	-1.8	-0.1

(p) preliminary for 1989; (r) revised for 1988

N.B. For the index, the average quarter in 1980 = 100%; the base for quarterly indexes is 1980 full year sales for the reporting companies divided by four.
Source: National Petroleum Refiners Assn.



Lube Sales Slip 1.3% in '89, EIA Says

Lubricants had a varied year in 1989, mostly on the negative side, however. A recap of Energy Information Administration's monthly reports shows that refinery output was off 4.4% and demand was down 1.3%; imports were up 9.5% but exports were down 24.4% in comparison to 1987's big showing of 9.0-million bbl.

Puerto Rico and Canada continued to be the principal suppliers of U.S. imports. Puerto Rico's edge was slightly under 3-million bbl. of lubricants while Canada's was 719,000 bbl. Others exporting lubricants to the U.S. were: The Netherlands, 89,000 bbl.; China, 73,000 bbl.; Brazil, 64,000 bbl.; Japan, 37,000 bbl.; Nigeria, 22,000 bbl.; Colombia, 7,000 bbl. Miscellaneous others accounted for 15,000 bbl. to make up the U.S. total of 4.0-million bbl.

The report also showed that 3.5-million of the U.S. total wound up in PAD 1, the Atlantic seaboard, while PAD 2 pulled in 297,000 bbl. The West Coast used 96,000 bbl. while PAD 3, the South and Southwest, accounted for 43,000 bbl. PAD 4, the Midcontinent and the Rockies, surprisingly didn't bring in a drop, according to the EIA records.

Lubricants—Supply, Disposition and Stocks (Thousands of bbl.)

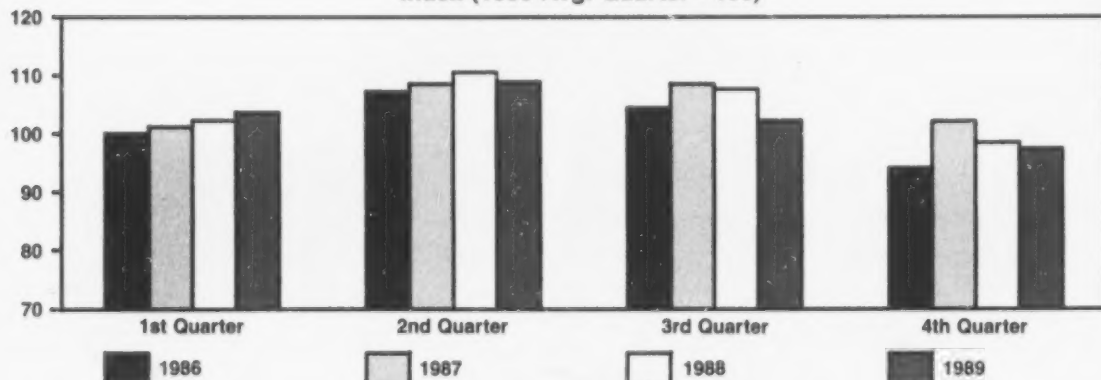
	Refinery Production	Imports	Stock Changes	Exports	Products Supplied	Ending Stocks		
						Refinery	Bulk Term.	Total
1989	59,738	4,005	528	6,815	56,400	9,183	4,643	13,826
1988	62,478	3,658	19	9,018	57,137	9,475	3,823	13,298
1987	61,639	4,076	1,475	8,613	58,577	9,410	3,907	13,317

1989 Month-by-Month Variations in Supplies

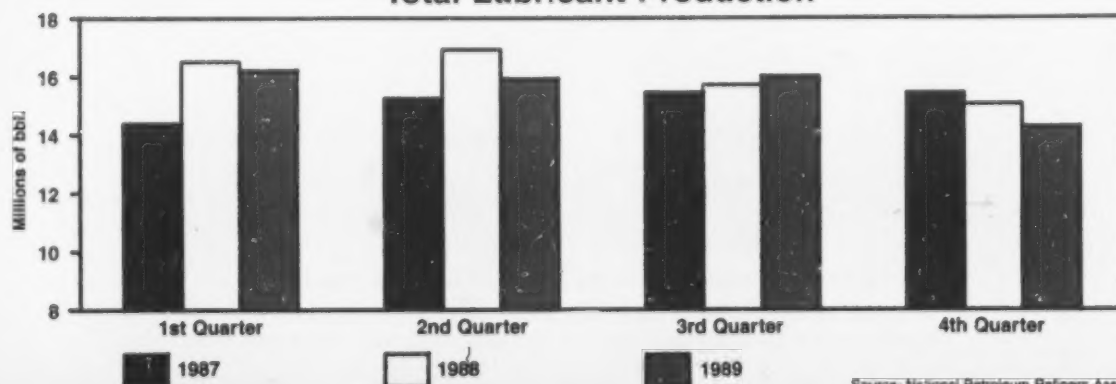
Jan.	5,355	876	975	411	4,345	9,792	4,481	14,273
Feb.	4,627	378	225	508	4,272	9,720	4,778	14,498
Mar.	5,247	413	(617)	534	5,743	9,571	4,310	13,881
Apr.	4,610	214	(333)	544	4,613	8,984	4,564	13,548
May	5,307	474	(396)	500	5,677	8,787	4,365	13,152
June	5,038	385	(106)	489	5,040	8,789	4,257	13,046
July	5,603	327	1,215	702	4,013	9,484	4,777	14,261
Aug.	5,292	382	208	600	4,866	9,658	4,811	14,469
Sept.	4,760	203	(231)	516	4,678	9,696	4,542	14,238
Oct.	4,360	279	(1,004)	513	5,130	8,841	4,393	13,234
Nov.	5,020	302	85	863	4,374	8,901	4,418	13,619
Dec.	4,519	272	507	635	3,649	9,183	4,643	13,826
Total	59,738	4,005	528	6,815	56,400	9,183	4,643	13,826

Source: Energy Information Administration, Petroleum Supply Monthly, Jan. to Dec. issues 1989.

Total Lubricant Sales Index (1980 Avg. Quarter = 100)

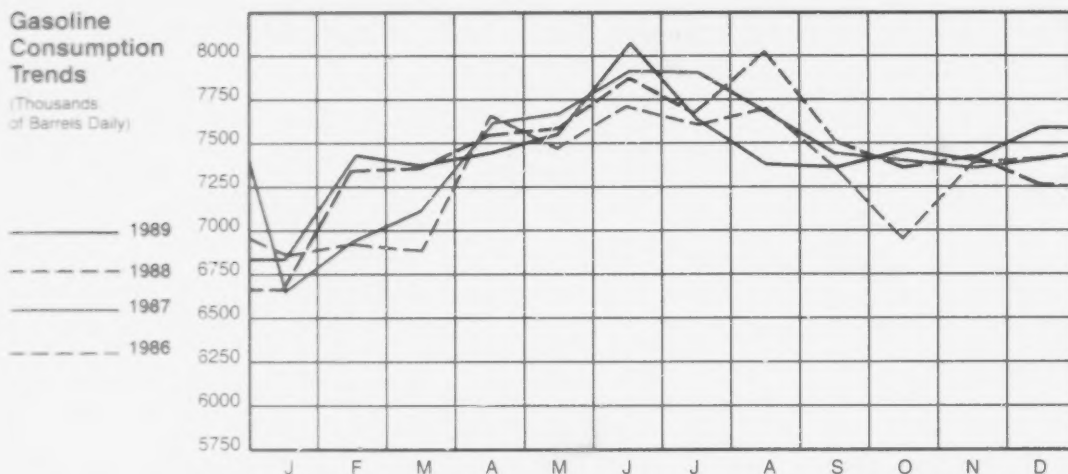


Total Lubricant Production



Source: National Petroleum Refiners Assn.

Gasoline Consumption Trends
(Thousands of Barrels Daily)



Source: Federal Highway Administration

Gasoline Consumption by States—1989

(Includes highway and off-highway consumption)

	Rank		(Add 000 gal.) Gallons (a)		% Chng.	(Add 000 gal.) Gasohol Included	
	1989	1988	1989	1988		1989	1988(b)
Alabama	19	21	2,122,400	2,072,236	2.4%	195,725	413,308
Alaska	50	50	239,017	246,038	(2.8)	12	215
Arizona	25	24	1,709,888	1,708,609	—	—	—
Arkansas	32	32	1,277,910	1,272,178	0.5	—	—
California	1	1	13,338,831	12,900,336	3.4	369,185	489,235
Colorado	26	27	1,535,449	1,561,689	(1.7)	70,522	50,707
Connecticut	28	28	1,498,324	1,397,428	7.2	—	—
Delaware	47	47	349,255	347,242	0.6	—	—
Dist. of Col.	—	—	182,672	186,686	—	333	446
Florida	3	3	6,162,552	6,040,283	2.0	78,968	76,312
Georgia	9	9	3,573,874	3,539,768	1.0	30,265	6,291
Hawaii	44	45	392,495	376,090	4.3	—	—
Idaho	41	41	487,784	478,952	1.9	64,830	45,012
Illinois	5	6	4,994,376	4,971,834	0.5	1,262,226	1,406,620
Indiana	14	14	2,642,311	2,760,066	(4.3)	—	651,544
Iowa	29	29	1,409,951	1,395,039	1.0	385,991	402,844
Kansas	31	31	1,296,792	1,326,752	(2.3)	98,586	120,763
Kentucky	23	23	1,851,136	1,889,808	(2.1)	403,859	656,845
Louisiana	22	22	2,040,067	2,064,779	(1.2)	53,161	79,635
Maine	37	38	694,543	658,179	5.6	—	—
Maryland	18	19	2,157,848	2,099,811	2.8	—	—
Massachusetts	16	16	2,521,208	2,542,571	0.9	—	—
Michigan	8	8	4,378,611	4,383,647	(0.2)	402,714	495,565
Minnesota	21	20	2,102,362	2,092,710	0.4	170,499	171,929
Mississippi	33	33	1,258,286	1,264,910	(0.6)	—	—
Missouri	13	13	2,758,383	2,780,023	(0.8)	—	—
Montana	42	42	452,709	448,745	0.9	65	257
Nebraska	36	37	801,115	801,447	—	271,082	258,073
Nevada	39	39	603,276	605,424	(0.3)	37,342	56,716
New Hampshire	40	40	527,295	527,610	—	—	—
New Jersey	10	11	3,479,752	3,491,849	(0.3)	—	—
New Mexico	35	36	820,566	828,818	(1.0)	171,297	147,656
New York	4	4	5,769,796	5,698,886	1.2	—	—
North Carolina	11	10	3,369,498	3,387,273	0.5	—	—
North Dakota	46	46	361,259	365,846	(1.4)	37,966	44,317
Ohio	7	5	4,538,586	5,013,487	(9.5)	850,649	981,874
Oklahoma	24	25	1,751,590	1,685,946	3.9	—	—
Oregon	30	30	1,368,250	1,364,831	0.2	—	—
Pennsylvania	6	7	4,710,447	4,766,668	(1.2)	—	—
Rhode Island	45	43	384,987	401,304	(4.0)	—	—
South Carolina	27	26	1,503,672	1,595,246	(5.7)	82,454	102,333
South Dakota	43	44	398,125	396,289	0.5	56,524	58,150
Tennessee	15	15	2,634,776	2,541,699	7.0	299,077	580,227
Texas	2	2	8,792,634	8,890,051	(1.1)	216,607	260,366
Utah	38	35	650,586	779,897	16.5	469	358
Vermont	49	49	283,993	291,291	(2.4)	—	—
Virginia	12	12	3,044,441	3,022,281	0.7	251,793	282,181
Washington	17	17	2,337,041	2,158,790	8.2	64,169	54,519
West Virginia	34	34	836,891	840,609	(0.5)	—	—
Wisconsin	20	18	2,122,168	2,117,182	0.2	47,260	20,175
Wyoming	48	48	288,303	318,967	(9.6)	54	62
Total U.S.	—	—	115,251,800	114,703,950	0.5	5,972,381	7,921,535

(a) These totals reflect the gross gallonage of gasoline reported for tax purposes by wholesale distributors in each state. The data are taken from state tax reports. The data include highway and non-highway use and losses. (b) These totals show gross gal. of gasohol (ethanol blends) reported by the states. In states where gasohol is taxed at the same rate as gasoline, some gasohol may be commingled with gasoline data. All totals—gasoline and gasohol—are preliminary.

Source: Federal Highway Administration, Monthly Gasoline Reports—1989.

Gasoline Consumption by Months—1988

This table, based on Federal Highway Administration data, shows gross gallons of gasoline reported by wholesale distributors in each state. The data are taken from state taxation

reports and may reflect time lags up to six weeks between the wholesale level and retail sales. The data include highway use, nonhighway use and losses.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	155,061	154,506	173,622	189,798	178,199	181,419	173,666	175,002	179,085	155,015	190,201	186,652	2,072,236
Alaska	15,897	16,683	17,863	17,975	19,322	27,594	27,259	24,963	19,371	23,892	17,555	17,664	246,038
Arizona	144,653	130,427	145,387	146,097	151,821	139,110	153,533	143,922	134,954	142,936	142,255	133,514	1,708,609
Arkansas	39,664	155,178	101,043	88,775	127,498	114,605	108,023	116,263	103,960	97,324	89,729	130,086	1,272,178
California	1,023,143	976,079	1,098,173	1,035,712	1,072,991	1,084,624	1,110,027	1,143,575	1,064,845	1,095,858	1,063,687	1,131,652	12,900,366
Colorado	120,689	113,857	127,472	128,927	128,719	140,668	148,955	148,546	128,477	140,293	130,144	104,942	1,561,689
Connecticut	118,104	116,066	128,208	121,520	130,554	129,172	126,504	133,731	97,860	103,848	100,237	91,624	1,397,428
Delaware	24,623	25,608	28,456	28,415	48,146	12,996	31,382	32,847	29,118	28,784	27,199	29,668	347,242
Dist. of Col.	14,600	14,068	16,565	15,258	16,028	15,994	15,686	16,081	15,044	15,712	15,377	16,273	186,825
Florida	506,621	474,284	531,819	555,610	522,258	503,008	480,035	497,821	507,662	480,309	488,921	491,935	6,040,283
Georgia	263,026	273,927	293,279	308,284	302,418	296,352	305,997	313,196	289,235	298,395	287,174	308,485	3,539,768
Hawaii	32,175	29,375	31,104	31,189	31,612	30,650	35,347	32,135	30,695	31,153	31,103	29,552	376,080
Idaho	34,140	34,363	35,800	34,111	41,698	36,682	37,780	47,497	47,287	45,721	43,735	40,138	478,952
Illinois	399,646	377,467	405,463	425,387	397,653	427,720	434,891	415,220	417,571	441,223	394,610	434,983	4,971,834
Indiana	206,177	195,302	223,871	244,630	265,431	171,587	267,584	283,712	219,006	230,436	221,213	231,117	2,760,066
Iowa	106,707	103,401	116,862	115,679	113,793	116,042	91,052	169,858	119,015	116,565	116,589	109,476	1,395,039
Kansas	100,259	113,150	111,395	107,658	111,398	121,145	111,887	114,247	107,564	109,173	108,884	109,992	1,326,752
Kentucky	152,429	138,864	154,639	169,276	176,082	182,181	173,588	161,311	142,827	152,206	148,803	163,602	1,889,808
Louisiana	155,174	158,304	177,914	171,264	179,631	163,772	177,049	197,131	169,740	163,955	168,942	181,903	2,064,779
Maine	51,163	45,840	49,340	47,068	55,044	55,184	61,247	69,070	59,881	58,340	54,247	51,755	658,179
Maryland	157,024	156,718	178,514	171,794	176,607	175,238	180,112	190,065	171,350	173,963	182,631	185,795	2,099,811
Massachusetts	202,127	190,783	210,261	204,375	216,322	220,334	217,431	229,382	208,058	212,350	206,049	225,099	2,542,571
Michigan	323,271	326,859	349,014	350,117	382,853	385,706	403,707	402,241	352,952	385,633	353,571	373,723	4,389,647
Minnesota	158,229	160,518	161,576	180,236	168,111	189,173	188,376	188,308	178,104	176,191	169,083	174,805	2,092,710
Mississippi	92,576	95,679	114,412	100,985	113,971	107,732	107,531	117,546	99,522	101,290	101,824	112,042	1,264,910
Missouri	212,354	198,142	240,380	237,141	234,477	240,693	253,933	237,942	228,815	233,678	226,370	236,098	2,780,023
Montana	29,322	29,689	34,609	34,791	37,243	43,623	47,942	46,338	38,034	36,883	36,253	34,038	448,745
Nebraska	56,918	57,063	65,267	63,569	67,851	78,920	69,606	73,060	67,810	70,782	66,509	64,092	801,447
Nevada	47,031	45,801	44,789	49,656	49,150	52,111	53,676	54,305	56,726	51,476	51,682	49,021	605,424
New Hampshire	41,400	39,969	41,517	40,369	43,392	47,098	47,877	50,911	44,289	44,608	41,245	44,935	527,610
New Jersey	250,306	312,988	251,300	312,517	287,682	353,257	276,269	318,477	323,413	271,785	239,548	294,307	3,491,849
New Mexico	61,033	66,089	69,938	65,710	71,265	69,104	73,006	77,990	67,559	68,525	66,573	72,026	828,818
New York	476,315	435,659	466,487	411,333	478,508	484,102	412,140	622,786	491,211	425,390	476,402	518,551	5,698,866
North Carolina	237,229	258,813	292,026	281,179	289,282	295,930	285,123	307,891	281,051	280,085	280,978	297,686	3,387,273
North Dakota	19,021	32,310	27,764	30,349	30,841	34,189	36,686	34,446	32,307	30,906	28,458	28,589	365,846
Ohio	396,332	358,859	414,493	411,952	443,007	439,656	432,824	455,525	414,837	412,263	413,066	420,593	5,013,407
Oklahoma	126,649	127,649	143,545	141,058	146,685	145,403	135,043	157,537	137,166	125,982	155,579	143,650	1,685,946
Oregon	24,416	171,151	95,791	75,400	127,328	125,221	161,097	130,518	115,382	114,545	108,093	115,889	1,364,831
Pennsylvania	357,052	348,604	386,144	386,680	413,211	407,874	412,856	421,556	386,165	402,473	398,484	445,569	4,766,668
Rhode Island	31,855	31,855	31,855	33,723	33,723	33,723	34,368	34,368	34,368	33,822	33,822	33,822	401,304
South Carolina	111,810	119,732	123,533	141,217	137,772	149,357	138,117	144,345	131,682	131,863	130,967	135,071	1,585,246
South Dakota	26,951	27,404	34,323	29,005	32,119	39,795	38,537	38,320	33,277	33,750	32,757	30,051	396,289
Tennessee	199,007	180,297	225,525	217,280	203,199	210,560	241,913	236,615	206,493	215,855	207,173	197,782	2,541,699
Texas	678,982	726,330	805,662	769,403	806,814	795,095	797,941	766,726	712,432	720,865	640,068	669,535	8,890,051
Utah	56,035	55,716	63,411	63,453	64,714	69,019	70,663	72,860	64,835	78,738	59,191	61,262	779,897
Vermont	23,009	22,047	22,975	21,127	23,502	25,146	26,824	28,504	25,379	25,281	22,457	25,040	291,291
Virginia	226,961	216,073	252,653	260,338	249,777	254,352	266,574	292,095	232,516	273,637	248,310	248,995	3,022,281
Washington	164,606	166,680	185,949	186,822	182,725	197,781	204,388	211,688	194,146	189,699	141,490	132,816	2,158,790
West Virginia	58,562	60,998	69,038	68,124	70,032	35,590	119,252	70,636	81,144	69,673	67,595	69,965	840,609
Wisconsin	155,916	163,349	133,160	168,376	212,230	191,901	187,429	192,499	177,969	181,457	173,203	179,693	2,117,182
Wyoming	20,696	20,792	22,667	23,272	27,409	32,898	35,553	33,680	29,197	27,490	23,243	21,990	318,867
U.S. Total	8,686,746	8,851,345	9,527,053	9,493,984	9,886,098	9,861,086	10,028,286	10,475,270	9,501,396	9,532,074	9,223,079	9,637,533	114,703,950

Source: Federal Highway Administration, Monthly Gasoline Reports 1988.

Gasoline Consumption by Months—1989

This table, based on Federal Highway Administration data, shows gross gallons of gasoline reported by wholesale distributors in each state. The data are taken from state taxation

reports and may reflect time lags up to six weeks between the wholesale level and retail sales. The data include highway use, nonhighway use and losses.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama.....	161,069	158,657	162,351	199,546	186,328	182,508	179,530	189,927	166,026	180,069	173,209	181,160	2,122,400
Alaska.....	15,332	15,218	19,401	17,208	18,788	28,588	23,978	30,617	19,881	17,306	12,597	20,103	239,017
Arizona.....	149,540	130,808	142,775	150,821	149,877	136,630	139,359	136,381	141,823	146,131	141,257	144,486	1,709,888
Arkansas.....	26,608	161,618	90,309	86,415	139,276	112,039	118,111	111,119	105,938	101,473	93,798	131,204	1,277,910
California.....	1,100,832	985,208	1,099,017	1,077,273	1,062,145	1,374,485	1,120,700	1,164,058	1,043,906	1,107,661	1,086,330	1,117,216	13,338,831
Colorado.....	115,521	113,007	129,112	126,069	126,155	137,673	140,835	146,872	127,097	129,520	104,684	138,904	1,535,449
Connecticut.....	117,175	114,338	129,237	120,705	130,440	127,712	121,534	128,111	123,849	127,119	122,923	135,101	1,498,324
Delaware.....	25,398	25,143	28,406	28,062	49,217	12,901	31,966	26,091	32,993	31,629	26,285	31,162	349,255
Dist. of Col.....	14,231	14,368	15,793	14,942	16,709	16,206	15,408	14,892	14,476	15,594	14,796	14,909	182,672
Florida.....	524,060	508,553	491,675	572,743	530,893	518,529	501,847	499,300	520,171	447,460	533,775	513,546	6,162,552
Georgia.....	270,090	279,645	313,033	293,620	310,802	301,717	399,380	314,728	285,619	303,803	290,648	310,789	3,573,874
Hawaii.....	35,297	27,671	34,085	31,088	31,670	36,206	33,528	33,883	31,521	32,302	32,025	33,219	392,495
Idaho.....	38,583	33,461	36,068	27,052	41,980	41,803	33,988	49,836	47,072	50,532	44,360	43,069	487,784
Illinois.....	393,982	358,007	400,612	410,491	407,678	431,478	430,810	498,265	391,500	438,766	416,489	416,198	4,994,376
Indiana.....	201,357	195,907	228,632	213,548	233,008	232,821	233,100	223,142	220,189	220,189	220,189	220,189	2,642,311
Iowa.....	116,237	97,312	115,238	114,980	121,703	124,632	115,509	127,813	111,134	127,619	110,433	127,304	1,409,951
Kansas.....	98,822	94,709	115,719	103,106	111,664	116,875	107,648	115,368	103,872	108,798	108,874	113,337	1,296,792
Kentucky.....	114,603	172,401	142,834	163,154	148,852	150,806	168,761	166,077	152,696	155,873	154,533	160,546	1,851,136
Louisiana.....	169,381	155,639	184,172	174,295	169,136	171,347	172,822	188,488	142,155	181,189	161,437	170,006	2,040,067
Maine.....	47,796	46,463	43,781	53,040	48,167	59,738	56,254	74,437	53,018	50,306	56,692	48,597	694,543
Maryland.....	169,454	158,027	201,871	170,731	190,682	190,874	185,275	183,000	166,216	180,425	182,990	178,303	2,157,846
Massachusetts.....	195,960	184,095	210,020	198,437	217,897	219,348	216,132	225,034	208,318	224,835	197,739	223,593	2,521,208
Michigan.....	331,174	326,349	361,353	335,537	383,450	385,128	390,982	422,361	344,839	381,661	366,756	348,801	4,378,611
Minnesota.....	133,603	176,467	167,505	158,936	183,327	186,090	187,002	168,125	192,954	192,243	139,839	216,271	2,102,362
Mississippi.....	109,671	81,047	121,659	94,146	103,607	114,730	105,403	114,944	96,779	104,883	91,717	119,700	1,258,286
Missouri.....	208,272	198,832	226,492	233,040	240,546	243,377	234,357	244,310	224,427	237,319	223,913	243,498	2,758,383
Montana.....	30,124	26,790	35,776	33,833	38,512	44,410	45,543	47,762	40,176	37,356	34,701	37,726	452,709
Nebraska.....	57,086	57,933	68,864	62,495	67,742	80,510	62,105	74,059	65,061	69,245	65,743	70,272	801,115
Nevada.....	49,677	48,748	45,072	53,200	50,970	54,302	54,778	57,349	58,603	54,837	54,576	51,155	633,278
New Hampshire.....	41,172	38,796	43,081	39,620	44,428	45,546	48,153	49,718	42,752	45,912	41,761	46,358	527,295
New Jersey.....	323,671	261,715	264,926	326,351	240,483	347,106	321,867	296,892	236,189	286,016	284,547	289,973	3,479,752
New Mexico.....	43,920	82,006	67,445	69,136	69,896	72,086	72,493	68,504	68,504	70,565	67,008	68,987	820,586
New York.....	488,200	482,407	501,578	389,750	514,141	447,599	518,960	591,935	446,497	490,386	430,166	468,177	5,769,796
North Carolina.....	255,379	245,479	285,452	274,555	297,440	295,315	289,151	301,798	273,313	291,458	267,736	292,422	3,369,498
North Dakota.....	17,396	30,719	25,160	31,191	31,913	34,158	33,839	37,039	31,234	30,088	27,398	31,124	361,259
Ohio.....	401,543	361,484	407,962	399,477	425,000	436,370	422,109	455,572	404,097	395,895	429,077	412,599	4,538,586
Oklahoma.....	103,314	150,156	142,681	136,013	145,192	144,275	159,250	160,190	153,085	147,670	138,778	171,006	1,751,580
Oregon.....	62,806	123,658	101,971	117,686	117,414	83,324	163,544	131,501	118,275	100,190	129,350	118,551	1,368,250
Pennsylvania.....	354,652	340,422	391,628	382,904	406,684	405,491	404,032	422,378	394,107	407,037	391,228	408,440	4,710,447
Rhode Island.....	30,407	30,407	30,407	33,480	33,480	33,480	31,401	31,401	31,401	33,041	33,041	33,041	384,987
South Carolina.....	104,451	115,148	130,581	123,677	129,304	129,502	133,229	135,343	119,076	128,093	118,483	136,785	1,503,672
South Dakota.....	26,643	25,682	32,506	29,498	34,158	38,965	38,793	40,249	32,670	33,602	31,588	33,571	396,125
Tennessee.....	212,367	208,522	219,642	221,383	232,727	204,261	239,056	219,188	214,712	219,094	207,355	236,469	2,634,776
Texas.....	663,739	630,944	767,689	711,189	751,576	743,493	732,167	797,168	729,141	755,148	741,278	769,096	8,792,634
Utah.....	58,663	52,138	58,615	59,059	61,849	65,409	51,923	55,016	36,932	49,583	45,433	54,238	650,586
Vermont.....	23,100	21,819	23,274	20,264	24,016	24,760	26,142	27,576	20,372	25,334	23,047	24,269	283,993
Virginia.....	246,591	202,383	251,120	259,438	259,921	277,038	240,577	297,158	242,167	276,701	242,271	249,076	3,044,441
Washington.....	168,475	162,845	229,420	187,261	195,106	197,063	219,456	212,791	197,904	192,141	184,639	189,920	2,337,041
West Virginia.....	66,972	60,244	67,172	74,862	61,742	79,385	76,986	70,418	65,712	76,802	53,410	83,186	836,891
Wisconsin.....	156,234	157,231	173,518	156,379	184,486	185,409	189,702	200,579	172,536	183,287	173,975	188,632	2,122,168
Wyoming.....	20,947	19,133	23,432	22,011	24,960	33,669	24,025	24,025	24,025	24,025	24,025	24,025	288,303
U.S. Total.....	8,888,577	8,749,798	9,600,124	9,383,697	9,797,121	10,157,199	10,020,754	10,405,808	9,291,200	9,720,096	9,347,000	9,890,513	115,251,800

Source: Federal Highway Administration, Monthly Gasoline Reports 1989; includes some estimates by NPN for late reporting states.

Gasoline Octanes, U.S. Service Stations

Year	Season	Leaded Regular ^(a)			Unleaded Regular ^(b)			Unleaded Premium ^(c)		
		Rsh.	Mtr.	(R + M)*	Rsh.	Mtr.	(R + M)*	Rsh.	Mtr.	(R + M)*
				2			2			2
1989	Summer	93.3	83.8	88.6	91.9	82.5	87.2	97.4	87.2	92.3
1988-89	Winter	93.1	83.7	88.4	91.6	82.6	87.2	97.0	87.2	92.1
1988	Summer	93.3	83.7	88.5	92.2	82.7	87.5	97.0	86.8	91.9
1987-88	Winter	93.1	84.2	88.7	91.9	82.9	87.4	96.7	87.0	91.9
1987	Summer	93.3	84.0	88.7	92.0	82.7	87.4	96.8	86.8	91.8
1986-87	Winter	93.1	84.2	88.7	91.7	82.7	87.2	96.7	86.9	91.8
1986	Summer	93.3	84.3	88.8	92.0	82.7	87.3	96.7	86.7	91.7
1985-86	Winter	93.0	84.5	88.8	91.8	82.8	87.3	96.8	86.9	91.8
1985	Summer	92.8	84.8	88.8	91.9	82.8	87.4	96.5	86.8	91.7
1984-85	Winter	92.8	85.2	89.1	91.8	82.9	87.4	96.4	86.8	91.6
1984	Summer	92.9	85.0	89.0	91.6	82.9	87.3	96.5	86.9	91.7
1983-84	Winter	92.7	84.9	88.8	91.7	82.9	87.3	96.1	86.6	91.3
1983	Summer	93.1	84.9	89.0	92.0	82.9	87.5	96.4	86.5	91.4
1982-83	Winter	92.9	85.2	89.1	91.7	82.9	87.3	96.3	86.7	91.5
1982	Summer	93.0	85.0	89.0	91.9	82.8	87.3	96.8	86.6	91.7
1981-82	Winter	92.7	81.1	88.9	91.8	82.9	87.4	96.6	86.8	91.7
1981	Summer	92.8	85.1	89.0	91.9	83.0	87.4	96.3	86.2	91.3
1980-81	Winter	92.8	85.4	89.1	91.9	83.3	87.6	96.1	86.5	91.4

(a) Below 93 octane; (b) Below 90 octane; (c) 90 octane and above; *Antiknock index.

Source: Motor Gasolines, Summer 1989, National Institute for Petroleum and Energy Research, Bartlesville, Okla., published February 1990.

Regional Octane Averages—Summer 1989^(a)

	Unleaded Regular ^(b)			Unleaded Midgrade ^(c)			Unleaded Premium ^(d)			Alcohol-blended Premium ^(e)		
	Rsh.	Mtr.	(R + M)*	Rsh.	Mtr.	(R + M)*	Rsh.	Mtr.	(R + M)*	Rsh.	Mtr.	(R + M)*
			2			2			2			2
Northeast	92.1	82.4	87.3	94.4	83.9	89.2	97.8	86.8	92.4	—	—	—
Mid-Atlantic Coast	92.1	82.3	87.2	94.4	84.0	89.2	98.0	87.1	92.6	97.7	86.5	92.1
Southeast	92.0	82.4	87.2	94.1	84.3	89.3	97.2	87.3	92.3	97.6	86.4	92.1
Florida	92.0	82.3	87.2	94.2	84.0	89.1	98.2	87.5	92.9	—	—	—
North Central	91.8	82.6	87.2	93.7	84.5	89.1	96.9	88.2	92.6	97.4	87.5	92.5
Ohio Valley	91.8	82.5	87.1	94.0	84.4	89.2	97.4	87.4	92.4	97.0	86.4	91.7
Central and Upper Plains	91.6	82.5	87.1	93.8	84.1	89.0	96.0	86.9	91.5	96.4	86.0	91.2
Oklahoma and East Texas	92.1	82.3	87.2	94.5	84.0	89.3	97.4	87.1	92.2	97.4	87.2	92.3
West Southwest	91.5	83.0	87.3	93.1	84.3	88.8	97.6	87.1	92.4	96.8	85.8	91.3
Pacific Northwest	91.5	82.7	87.1	93.6	84.0	88.8	97.3	86.9	92.1	—	—	—
North California and North Nevada	91.8	82.6	87.2	94.1	84.7	89.4	97.3	86.8	92.1	—	—	—
South California	91.9	82.5	87.2	94.2	84.4	89.3	97.3	86.7	92.0	98.0	86.6	92.3
Average	91.9	82.5	87.2	94.0	84.2	89.1	97.4	87.2	92.3	97.3	86.6	91.9

(a) Effective with this issue, leaded octane data are being dropped and a new set of figures dealing with unleaded midgrade gasoline is being added; (b) below 88 octane; (c) 88.0 to 89.9 octane; (d) 90-octane and above; (e) 90 octane and above (blended). NB: Regions were reduced from 17 to 12 by The API Products Committee in 1989.

Source: Motor Gasolines, Summer 1989, National Institute for Petroleum and Energy Research, Bartlesville, Okla., published February 1990.

Gasoline Consumption by Rank—1989

State	Rank		Gallons (Add 000) 1989 (a)	State	Rank		Gallons (Add 000) 1989 (a)
	1989	1988			1989	1988	
California	1	1	13,338,881	Connecticut	28	28	1,498,324
Texas	2	2	8,792,634	Iowa	29	29	1,409,951
Florida	3	3	6,162,552	Oregon	30	30	1,368,250
New York	4	4	5,769,796	Kansas	31	31	1,296,792
Illinois	5	6	4,994,376	Arkansas	32	32	1,277,910
Pennsylvania	6	7	4,710,447	Mississippi	33	33	1,258,286
Ohio	7	5	4,538,856	West Virginia	34	34	838,891
Michigan	8	8	4,378,611	New Mexico	35	36	820,566
Georgia	9	9	3,573,874	Nebraska	36	37	801,115
New Jersey	10	11	3,479,752	Maine	37	38	694,543
North Carolina	11	10	3,369,498	Utah	38	35	650,586
Virginia	12	12	3,044,441	Nevada	39	39	603,276
Missouri	13	13	2,758,383	New Hampshire	40	40	527,295
Indiana	14	14	2,642,311	Idaho	41	41	487,784
Tennessee	15	15	2,634,776	Montana	42	42	452,709
Massachusetts	16	16	2,521,208	South Dakota	43	44	398,125
Washington	17	17	2,337,041	Hawaii	44	45	392,495
Maryland	18	19	2,157,848	Rhode Island	45	43	384,987
Alabama	19	21	2,122,400	North Dakota	46	46	361,259
Wisconsin	20	18	2,122,168	Delaware	47	47	349,255
Minnesota	21	20	2,102,362	Wyoming	48	48	288,303
Louisiana	22	22	2,040,067	Vermont	49	49	283,993
Kentucky	23	23	1,851,136	Alaska	50	50	239,017
Oklahoma	24	25	1,751,590	Dist. of Col.	—	—	182,672
Arizona	25	24	1,709,888				
Colorado	26	27	1,535,449				
South Carolina	27	26	1,503,672				

(a) Preliminary with some estimates by NPN for late-reporting states.
Source: Federal Highway Administration, Monthly Gasoline Reports 1989.

Almost 90% of Gasoline is Unleaded

Unleaded gasoline sales rose another 6% in 1989, all but washing out leaded gasoline as a factor in the U.S. marketplace.

Unleaded gasoline sales hit an all-time high average of 6,500,000-b/d. This was 88.7% of total gasoline sales, meaning that unleaded gasoline demand averaged nine out of every 10 gallons sold last year.

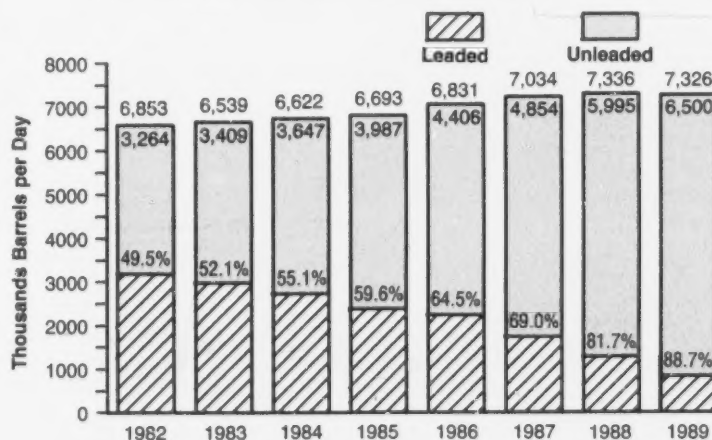
Unleaded gasoline sales have been rising steadily through the years, exerting downward pressure on leaded grades. It is anticipated that by the mid 1990s, leaded gasoline will be virtually a specialty product hard to find in most parts of the U.S.

An interesting aspect of the 1989 picture was that total gasoline sales averaged 7,336,000-b/d. This is the second highest annual average in history, being exceeded only by the 1978 peak of 7,412,000-b/d. Barring any freak changes in national consumption patterns, this old 1978 record could be surpassed this year.

It is true, of course, that pump sales averaged more than 7,412,000-b/d in the summer driving months in 1989, but that was only for a limited period.

Unleaded gasoline was mandated by the federal government in 1978. When it first came on the market it was lucky to capture one out of every four gallons sold. By

Unleaded vs. Leaded Motor Gasoline, 1982-1989



Source: Energy Information Administration, Petroleum Supply Monthly, February, 1990

1981, unleaded sales were about half the market, and by 1985 unleaded gasoline had a two-to-one edge over leaded gasoline. The gap grew wider in 1989, with unleaded gasoline now accounting for nine out of every 10 gallons sold.

These changes are being reflected in the retail markets. Many oil companies have already discontinued leaded sales and have added a mid-grade unleaded so that consumers will continue to have their choice of motor fuels.

Gasohol Consumption by States—1988

This table, prepared by Federal Highway Administration, shows gross gallons of gasohol (ethanol blends) reported by the various states. The data are obtained from the state taxation reports. In states where gasohol is taxed at the same rate as

gasoline, some gasohol gallonage may be commingled with gasoline data. This report indicates there was a small increase in gasohol sales in 1988.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	34,622	36,380	42,169	40,039	37,122	35,982	34,306	31,503	35,007	27,013	31,047	31,118	416,308
Alaska	33	44	28	24	15	16	10	10	9	10	6	10	215
Arizona	—	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—	—	—	—	—
California	24,118	35,759	38,888	45,443	43,011	42,709	39,689	45,933	47,005	50,524	38,098	38,058	489,235
Colorado	4,537	4,689	5,781	6,743	5,659	3,978	1,627	1,772	1,230	3,067	5,642	5,982	50,707
Connecticut	—	—	—	—	—	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—	—	—	—	—	—
Dist. of Col.	29	35	53	52	19	26	13	63	46	29	41	40	446
Florida	7,552	5,714	4,914	5,453	5,704	7,142	6,162	6,404	6,521	5,800	7,616	7,330	76,312
Georgia	—	—	—	—	—	—	—	—	752	1,847	1,750	1,942	6,291
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	2,665	2,893	2,456	2,983	3,600	3,001	3,293	3,745	4,025	4,831	5,692	5,828	45,012
Illinois	104,826	104,126	119,114	114,903	115,060	116,047	139,977	118,923	106,319	142,266	110,245	114,814	1,406,620
Indiana	42,393	50,624	42,872	47,910	47,910	47,910	57,760	57,760	57,760	66,215	66,215	66,215	651,544
Iowa	33,622	31,987	33,569	34,628	32,880	30,373	23,223	53,605	31,971	31,716	33,385	31,885	402,844
Kansas	8,364	7,900	8,777	9,624	9,969	10,069	10,146	10,512	10,054	11,202	11,303	12,843	120,763
Kentucky	75,132	54,936	61,704	50,367	37,475	56,108	130,788	38,067	38,067	38,067	38,067	38,067	656,845
Louisiana	10,620	7,774	4,972	5,779	4,729	6,167	4,684	19,960	3,512	3,034	4,454	3,950	79,635
Maine	—	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts ..	—	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	37,379	38,795	41,132	40,731	42,650	44,342	42,361	44,143	41,302	42,968	41,943	41,819	499,565
Minnesota	14,810	13,210	12,834	16,076	14,002	15,248	14,245	15,121	13,917	14,705	13,923	13,838	171,929
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—	—
Missouri	—	—	—	—	—	—	—	—	—	—	—	—	—
Montana	25	110	33	3	40	—	4	13	4	—	11	14	257
Nebraska	19,572	19,360	21,048	19,595	22,438	23,733	21,680	22,518	21,294	22,876	21,916	22,043	258,073
Nevada	4,229	3,950	4,214	4,619	4,356	3,411	5,508	7,361	3,453	6,497	6,447	2,671	56,716
New Hampshire ..	—	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico	10,066	10,014	10,985	11,576	11,723	11,574	12,552	13,346	11,366	13,973	15,109	15,372	147,656
New York	—	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina ..	—	—	—	—	—	—	—	—	—	—	—	—	—
North Dakota	2,171	4,062	3,083	4,511	4,023	4,245	4,293	3,896	3,589	3,707	3,283	3,474	44,317
Ohio	119,612	73,300	80,914	78,937	81,398	78,924	61,710	78,705	78,332	77,501	73,320	79,221	981,874
Oklahoma	—	—	—	—	—	—	—	—	—	—	—	—	—
Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina ...	8,449	6,371	7,403	9,774	7,039	13,394	10,977	3,922	7,402	8,398	14,505	4,699	102,333
South Dakota	4,210	4,559	4,990	4,866	5,135	5,305	4,930	4,971	4,487	4,748	4,885	5,064	58,150
Tennessee	43,232	51,800	47,117	33,362	37,100	53,705	52,201	43,716	47,721	47,227	65,516	57,530	580,227
Texas	30,644	37,041	46,813	47,922	43,691	45,571	1,524	1,087	933	1,001	1,307	2,832	260,366
Utah	62	—	30	10	—	—	—	39	54	51	60	52	358
Vermont	—	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	24,902	21,332	24,785	23,832	22,613	24,559	23,950	24,666	22,038	24,351	22,113	23,040	282,181
Washington	4,056	3,618	4,527	5,278	4,076	4,474	4,680	4,586	4,662	4,835	5,020	4,707	54,519
West Virginia	—	—	—	—	—	—	—	—	—	—	—	—	—
Wisconsin	974	1,021	1,940	903	652	5,262	1,024	319	1,212	2,282	1,467	3,119	20,175
Wyoming	5	4	5	5	5	7	7	5	5	5	5	4	62
U.S. Total.	672,911	631,408	677,150	665,948	644,094	693,282	733,324	656,671	604,029	660,746	644,391	637,581	7,921,535

Source: Federal Highway Administration, Monthly Gasoline Reports 1988.

Gasohol Consumption by States—1989

This table, prepared by Federal Highway Administration, shows gross gallons of gasohol (ethanol blends) reported by the various states. The data are obtained from the state taxation reports. In states where gasohol is taxed at the same rate as

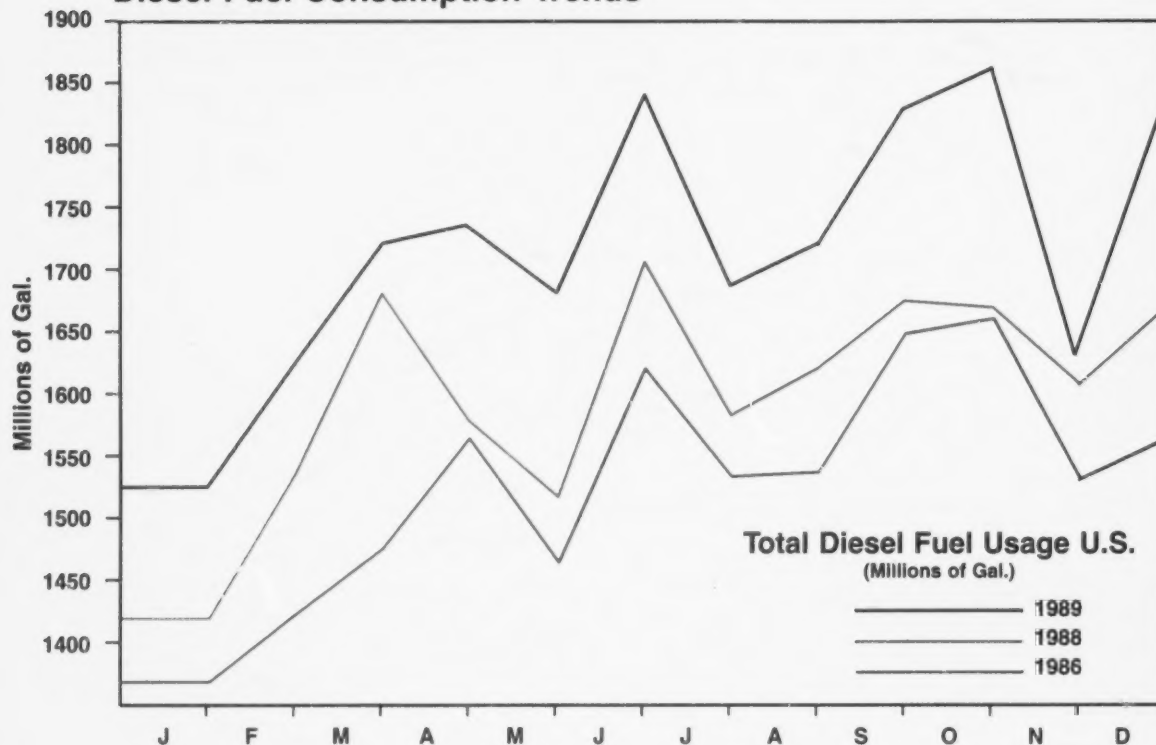
gasoline, some gasohol gallonage may be commingled with gasoline data. At any rate, this is a preliminary report and upward revisions may be expected on the basis of later data. This report indicates there was a decrease in gasohol sales in 1989.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama	29,892	27,949	14,590	16,629	13,945	11,532	12,237	13,149	12,538	14,996	13,996	14,272	195,725
Alaska	—	9	3	—	—	—	—	—	—	—	—	—	12
Arizona	—	—	—	—	—	—	—	—	—	—	—	—	—
Arkansas	—	—	—	—	—	—	—	—	—	—	—	—	—
California	37,316	30,512	33,507	28,644	30,799	27,268	31,649	31,985	32,335	31,484	25,896	27,790	369,185
Colorado	5,024	5,613	6,338	4,695	5,377	4,613	4,106	5,763	3,135	14,699	1,822	9,337	70,522
Connecticut	—	—	—	—	—	—	—	—	—	—	—	—	—
Delaware	—	—	—	—	—	—	—	—	—	—	—	—	—
Dist. of Col.	17	30	32	30	33	38	40	22	—	45	32	14	333
Florida	7,485	6,799	6,591	8,359	7,226	7,007	6,431	5,928	5,816	5,242	5,503	6,581	78,968
Georgia	1,751	1,854	2,257	2,642	2,114	2,008	2,278	2,952	2,586	2,954	3,098	3,771	30,265
Hawaii	—	—	—	—	—	—	—	—	—	—	—	—	—
Idaho	4,069	5,561	5,263	3,520	6,377	2,275	3,841	8,424	6,814	6,084	6,288	6,314	64,830
Illinois	102,262	95,096	110,069	103,186	113,755	104,282	108,231	105,269	105,269	105,269	105,269	105,269	1,262,226
Indiana	—	—	—	—	—	—	—	—	—	—	—	—	—
Iowa	35,651	27,468	31,942	31,831	33,302	31,726	32,826	33,028	29,085	38,985	30,408	35,930	385,991
Kansas	11,249	10,714	9,889	8,965	8,462	7,584	7,044	7,232	6,567	6,634	6,657	7,589	98,586
Kentucky	38,067	36,893	42,228	39,063	32,479	28,526	33,485	31,966	33,016	32,067	31,944	24,125	403,859
Louisiana	3,303	4,252	3,506	4,192	4,034	10,525	3,245	3,384	3,787	2,870	5,633	4,430	53,161
Maine	—	—	—	—	—	—	—	—	—	—	—	—	—
Maryland	—	—	—	—	—	—	—	—	—	—	—	—	—
Massachusetts ..	—	—	—	—	—	—	—	—	—	—	—	—	—
Michigan	35,340	33,868	39,969	35,466	39,824	26,921	33,209	34,545	29,916	31,288	31,766	30,602	402,714
Minnesota	10,456	14,706	13,731	13,394	14,909	14,340	14,504	14,369	12,766	15,340	13,809	18,175	170,499
Mississippi	—	—	—	—	—	—	—	—	—	—	—	—	—
Missouri	—	—	—	—	—	—	—	—	—	—	—	—	—
Montana	2	—	3	16	4	17	5	1	5	9	3	—	65
Nebraska	19,720	20,230	23,387	20,465	22,971	24,628	21,939	24,133	22,174	22,734	23,763	24,938	271,082
Nevada	3,932	3,499	3,375	3,184	2,966	2,897	2,511	2,632	2,443	2,495	2,559	4,849	37,342
New Hampshire ..	—	—	—	—	—	—	—	—	—	—	—	—	—
New Jersey	—	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico	7,871	20,580	15,242	14,475	13,669	11,921	12,699	12,134	12,134	13,563	16,175	20,634	171,297
New York	—	—	—	—	—	—	—	—	—	—	—	—	—
North Carolina ..	—	—	—	—	—	—	—	—	—	—	—	—	—
North Dakota	2,221	4,024	3,219	3,156	3,277	3,727	3,153	3,146	2,960	3,156	2,804	3,223	37,966
Ohio	73,350	68,756	74,637	78,398	80,773	79,020	7,712	78,894	77,746	77,451	82,825	70,887	850,649
Oklahoma	—	—	—	—	—	—	—	—	—	—	—	—	—
Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania	—	—	—	—	—	—	—	—	—	—	—	—	—
Rhode Island	—	—	—	—	—	—	—	—	—	—	—	—	—
South Carolina ...	5,093	5,187	6,489	6,153	6,124	5,277	6,643	8,131	7,569	8,861	8,030	8,897	82,454
South Dakota	4,102	4,236	5,066	4,535	5,038	5,308	5,160	5,258	4,475	4,311	4,218	4,817	56,524
Tennessee	27,245	37,367	40,288	46,147	36,210	27,964	19,576	18,802	17,870	8,008	9,100	10,500	299,077
Texas	41,607	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000	20,000	20,000	216,607
Utah	69	35	60	43	—	48	—	41	50	42	42	39	469
Vermont	—	—	—	—	—	—	—	—	—	—	—	—	—
Virginia	22,352	18,211	21,654	21,077	19,920	24,139	20,742	20,904	19,446	21,044	20,115	22,189	251,793
Washington	3,945	4,420	5,423	5,301	5,118	5,405	5,180	5,417	5,256	5,008	5,512	—	55,985
West Virginia	—	—	—	—	—	—	—	—	—	—	—	—	—
Wisconsin	3,773	3,256	4,313	2,436	3,217	3,646	3,615	6,326	2,075	5,291	3,974	5,698	47,620
Wyoming	7	5	6	6	5	5	6	6	6	6	6	6	64
U.S. Total.	537,980	506,130	538,077	521,008	526,928	487,647	417,061	498,841	427,739	487,936	478,688	499,246	5,972,381

Source: Federal Highway Administration, Monthly Gasoline Reports, 1989.

Diesel Fuel Consumption Trends



Diesel Fuel Consumption by States—1989

	Rank		Gallons		%		Rank		Gallons		%
	1989	1988	1989(a)	1988			1989	1988	1989(a)	1988	
Alabama	14	18	545,810	486,519	12.2%	Montana	41	39	112,670	117,390	(3.4)
Alaska	42	44	97,588	84,306	15.8	Nebraska	32	31	210,723	219,806	(4.1)
Arizona	27	28	318,396	303,840	4.8	Nevada	38	40	132,607	119,540	10.8
Arkansas	19	22	407,964	351,798	16.0	New Hampshire	46	45	60,266	58,798	2.5
California	1	1	1,944,331	1,872,726	3.8	New Jersey	18	16	420,441	480,544	(12.7)
Colorado	35	34	187,715	172,029	9.1	New Mexico	33	33	208,354	207,368	0.5
Connecticut	31	32	211,997	215,445	(2.3)	New York	10	14	661,083	705,034	(6.2)
Delaware	45	46	74,996	56,125	33.6	North Carolina	12	9	621,760	620,894	—
Dist. of Col.	—	—	23,337	23,329	—	North Dakota	44	43	93,429	92,209	0.1
Florida	5	6	881,499	833,522	5.6	Ohio	4	4	926,944	872,509	6.2
Georgia	6	5	847,733	841,982	0.6	Oklahoma	20	19	397,978	398,037	—
Hawaii	49	49	24,055	22,999	4.6	Oregon	(b)	(b)	(b)	308,276	—
Idaho	40	41	118,634	100,908	17.6	Pennsylvania	3	3	934,169	940,114	(0.6)
Illinois	7	7	846,979	783,017	8.2	Rhode Island	47	48	53,559	44,304	20.1
Indiana	8	8	725,995	636,734	14.0	South Carolina	28	27	306,197	314,357	(2.5)
Iowa	24	23	354,022	339,940	4.1	South Dakota	43	42	93,765	95,672	(2.0)
Kansas	29	26	295,631	302,643	(2.3)	Tennessee	13	11	590,169	582,701	1.3
Kentucky	9	15	673,521	513,689	31.7	Texas	2	2	1,381,100	1,312,739	5.2
Louisiana	21	20	386,915	387,981	(0.3)	Utah	39	37	131,426	151,026	(13.2)
Maine	34	35	201,587	133,183	51.4	Vermont	48	47	46,796	54,612	(12.7)
Maryland	23	29	355,307	303,374	17.1	Virginia	15	10	543,933	539,702	0.8
Massachusetts	30	30	273,086	294,131	(7.2)	Washington	22	21	382,586	355,556	7.7
Michigan	16	13	535,470	532,806	0.5	West Virginia	37	38	162,084	162,261	—
Minnesota	25	24	326,182	335,968	(2.9)	Wisconsin	17	17	455,089	424,294	7.3
Mississippi	25	25	321,190	322,838	(0.5)	Wyoming	36	36	179,142	174,085	2.9
Missouri	11	12	649,277	542,311	19.7	U.S. Total			20,774,065	20,053,051	3.6

(a) Preliminary and includes some estimates by NPN for late-reporting states; (b) Oregon discontinued collecting diesel fuel data after 1987.
Source: Federal Highway Administration, Monthly Gasoline Reports—1989.

Highway Diesel Sales by States—1988

Diesel Sales for motor vehicles—passenger cars, trucks and buses—climbed another 10.3% in 1988, continuing the upward swing of recent years. On-highway consumption amounted to 20-billion gal., compared with 18.1-billion gal. in 1987.

Off-highway sales—primarily for construction equipment and farms but occasionally including utilities for power generation—rose 5.2% in 1988, continuing the impressive increase of 1987.

(Add 000 gal.)

	On-Highway			Off-Highway		
	1988	1987	% Change	1988	1987	% Change
PAD District 1						
New England States						
Connecticut	212,589	188,172	12.9%	12,010	11,894	1.0%
Maine	175,344	157,344	11.4	20,028	13,662	46.6
Massachusetts	293,007	282,982	3.5	17,627	14,873	18.5
New Hampshire	58,051	54,975	5.6	6,110	9,256	(34.0)
Rhode Island	43,741	55,520	(21.2)	999	1,085	(7.9)
Vermont	53,918	50,607	6.5	7,404	4,544	62.9
Central Atlantic States						
Delaware	55,412	58,756	(5.7)	3,384	2,948	14.8
District of Columbia	23,033	21,822	5.5	81	165	(50.9)
Maryland	299,521	289,433	3.5	15,272	17,940	(14.9)
New Jersey	477,858	446,805	7.0	28,363	22,854	24.1
New York	713,826	633,543	12.7	41,963	41,920	0.1
Pennsylvania	928,175	868,650	6.9	45,595	38,908	17.2
Lower Atlantic States						
Florida	832,093	654,444	27.1	56,154	71,958	(22.0)
Georgia	831,267	772,080	7.7	35,397	33,482	5.7
North Carolina	711,035	580,195	22.6	28,443	32,484	(12.4)
South Carolina	310,365	282,618	9.8	24,928	16,671	49.5
Virginia	532,848	501,785	6.2	53,024	28,440	86.4
West Virginia	160,141	150,200	6.6	18,285	20,510	(10.8)
Total	6,712,224	6,049,931	10.9	415,066	383,592	8.2
PAD District 2						
Illinois	771,386	724,982	6.4	56,630	59,567	(4.9)
Indiana	628,647	696,704	(10.0)	17,954	13,395	34.0
Iowa	333,931	322,226	3.6	17,335	13,173	31.6
Kansas	331,826	351,717	(5.6)	17,127	21,062	(18.7)
Kentucky	512,517	356,046	43.9	21,276	21,543	(1.2)
Michigan	526,217	511,402	2.9	49,716	45,303	9.7
Minnesota	331,701	313,255	5.9	23,638	17,221	37.3
Missouri	535,424	487,063	9.9	37,120	33,254	11.7
Nebraska	217,014	201,084	7.8	18,094	17,881	1.2
North Dakota	89,873	88,184	1.9	5,470	5,582	(1.6)
Ohio	861,426	751,521	14.8	27,752	26,130	(1.3)
Oklahoma	390,165	383,820	2.7	28,108	29,377	(5.3)
South Dakota	91,906	89,852	2.3	11,684	11,838	(1.3)
Tennessee	578,829	562,036	3.0	59,940	63,348	(5.4)
Wisconsin	440,836	384,232	14.7	22,398	22,425	(0.1)
Total	6,845,800	6,226,136	8.7	414,244	403,348	2.7
PAD District 3						
Alabama	480,340	404,744	18.7	53,110	49,742	6.8
Arkansas	346,026	322,040	7.4	30,943	31,618	(2.1)
Louisiana	383,054	344,059	11.3	74,854	66,459	12.6
Mississippi	302,361	289,999	4.3	33,755	41,235	(18.1)
New Mexico	204,734	189,499	8.0	35,167	22,965	53.1
Texas	1,296,067	1,319,054	(1.7)	277,203	232,075	19.4
Total	3,012,582	2,869,395	5.0	505,034	444,094	13.7
PAD District 4						
Colorado	188,922	184,224	2.6	43,198	28,248	52.0
Idaho	99,626	102,878	(3.2)	17,004	18,379	(7.5)
Montana	115,899	106,998	8.3	11,171	12,565	(11.1)
Utah	149,108	104,894	42.2	21,284	18,830	28.0
Wyoming	171,874	181,974	(5.6)	22,388	22,880	(2.1)
Total	725,429	716,968	1.2	115,045	96,682	16.8
PAD District 5						
Alaska	83,235	61,624	35.1	13,855	25,802	(46.3)
Arizona	299,981	269,026	11.5	25,285	35,506	(28.8)
California	1,760,085	1,256,749	40.1	208,735	201,486	3.6
Hawaii	21,935	20,219	8.5	7,227	4,288	68.5
Nevada	118,022	119,411	(1.2)	32,792	25,818	27.0
Oregon	302,381	269,015	12.4	43,412	50,498	(14.0)
Washington	357,017	314,460	13.5	41,125	58,938	(30.2)
Total	2,942,656	2,310,504	27.4	372,431	402,390	(7.4)
U.S. Total	20,038,691	18,172,934	10.3%	1,821,819	1,732,106	5.2%

Source: Energy Information Administration, Petroleum Marketing Monthly, June 1989.

Diesel Fuel Consumption by States—1988

The table below, prepared by the Federal Highway Administration, shows gross gallons of special fuels, but this is primarily diesel fuel. Included are small amounts of liquefied

petroleum gases. In most cases, FHA says, the data reflect retail sales for the year.

(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama.....	39,806	41,018	34,232	44,355	43,260	33,303	41,482	43,781	36,151	45,076	45,895	38,180	486,519
Alaska.....	3,962	2,455	8,181	8,719	8,318	14,003	11,478	10,352	9,385	5,891	1,892	3,682	84,306
Arizona.....	23,744	26,456	26,754	26,283	20,529	30,880	26,043	21,186	26,713	20,280	13,262	38,701	303,840
Arkansas.....	11,643	41,366	26,337	26,960	35,447	30,419	25,939	31,245	30,947	27,737	25,433	36,305	351,798
California.....	139,700	139,700	139,700	142,117	142,117	142,117	151,639	151,639	151,639	160,786	160,786	160,786	1,782,726
Colorado.....	12,599	12,571	18,828	13,848	14,582	20,187	14,809	15,251	20,383	14,889	14,282	—	172,029
Connecticut.....	16,783	18,796	18,830	16,320	17,454	19,577	17,351	20,412	16,342	16,925	16,925	19,730	215,445
Delaware.....	4,767	5,747	3,660	5,416	5,217	3,495	4,287	5,644	3,316	4,948	5,675	3,953	56,125
Dist. of Col.....	1,562	2,091	2,307	1,797	1,976	2,032	1,952	2,376	1,630	1,860	1,794	1,932	23,329
Florida.....	67,875	67,928	69,798	70,284	71,497	70,934	68,344	65,131	67,730	64,758	71,869	71,371	833,522
Georgia.....	72,748	56,810	77,589	53,715	64,869	78,013	65,543	71,945	72,024	74,793	84,654	66,479	841,982
Hawaii.....	2,179	1,566	1,683	2,129	1,841	1,765	2,238	1,746	1,917	2,238	1,709	1,988	22,996
Idaho.....	8,269	13,300	5,189	9,966	10,669	115	8,769	14,308	4,260	10,545	13,513	2,005	100,908
Illinois.....	61,852	58,419	62,752	67,356	62,965	67,726	68,861	65,746	66,119	69,863	62,483	68,875	783,017
Indiana.....	18,943	44,999	49,744	65,342	51,492	71,174	57,960	45,921	50,271	53,545	61,756	65,587	636,734
Iowa.....	29,312	19,954	35,058	29,128	27,788	31,421	20,784	34,795	32,932	29,627	27,856	21,285	339,940
Kansas.....	19,366	26,337	22,208	23,846	23,841	29,897	28,565	26,349	24,894	25,537	26,880	24,925	302,643
Kentucky.....	27,231	29,651	36,038	29,583	35,389	36,202	29,117	56,931	63,671	57,699	56,499	51,958	513,969
Louisiana.....	27,462	27,341	37,469	29,471	31,107	36,804	32,880	30,111	36,278	32,125	30,596	36,337	387,981
Maine.....	12,965	12,834	7,451	11,829	12,421	8,765	12,215	11,923	9,848	13,552	11,117	10,243	133,183
Maryland.....	20,044	24,612	27,718	23,565	24,086	28,028	26,030	26,524	26,034	24,826	27,063	24,844	303,374
Massachusetts.....	25,250	19,732	21,593	29,000	23,814	29,555	22,403	21,803	23,063	27,488	20,191	30,239	294,131
Michigan.....	34,746	33,376	49,948	46,328	35,535	56,032	39,071	37,222	62,062	41,002	36,935	60,549	532,806
Minnesota.....	25,688	25,619	28,961	29,541	25,430	29,749	28,703	27,455	29,394	29,837	28,748	26,843	335,968
Mississippi.....	27,108	22,857	27,784	28,826	23,048	26,789	30,170	25,452	26,811	33,041	23,528	27,424	322,838
Missouri.....	43,113	32,804	49,763	40,211	39,851	53,531	37,220	39,880	53,723	47,914	43,628	60,698	542,311
Montana.....	11,125	7,967	7,426	13,536	6,329	7,618	13,396	9,046	9,557	13,459	7,279	10,452	117,390
Nebraska.....	14,355	15,307	21,273	15,485	18,486	22,173	15,513	19,551	22,838	18,123	19,396	17,326	219,806
Nevada.....	7,784	18,206	7,592	7,136	18,909	4,524	8,032	3,279	8,442	9,402	11,867	14,367	119,540
New Hampshire.....	6,807	2,433	5,467	6,131	3,679	6,533	7,331	3,349	4,644	6,704	3,049	2,671	58,798
New Jersey.....	44,129	33,503	37,779	41,051	38,392	48,765	37,411	39,015	45,961	39,446	37,310	37,782	480,544
New Mexico.....	29,309	14,841	4,238	34,474	15,260	5,957	41,707	8,684	2,413	45,144	4,739	602	207,368
New York.....	38,865	43,350	43,834	42,180	47,769	44,226	39,275	49,217	172,466	67,250	70,544	46,078	705,034
North Carolina.....	46,837	40,775	55,902	49,252	51,241	60,531	40,810	56,224	55,175	49,388	56,458	58,501	620,894
North Dakota.....	5,254	6,663	7,045	7,671	7,632	8,865	8,047	7,495	9,336	9,334	7,359	7,483	82,209
Ohio.....	67,632	65,905	67,030	68,776	71,587	71,845	66,152	72,424	73,915	78,262	74,808	74,160	872,509
Oklahoma.....	28,790	27,675	39,695	28,545	31,831	39,265	31,193	31,061	38,900	33,254	31,655	36,173	398,037
Oregon.....	25,523	25,523	25,523	25,523	25,523	25,523	25,523	25,523	25,523	25,523	25,523	25,523	306,276
Pennsylvania.....	71,928	75,682	82,515	77,143	77,658	82,069	74,589	82,617	80,157	83,717	78,740	73,299	940,114
Rhode Island.....	3,461	3,461	3,461	3,864	3,864	3,864	3,740	3,740	3,740	3,703	3,703	3,703	44,304
South Carolina.....	20,655	18,909	43,234	15,813	20,303	32,340	28,080	25,596	28,778	26,293	20,630	33,724	314,367
South Dakota.....	7,680	7,411	7,518	6,746	7,713	7,782	8,375	9,206	9,071	10,310	7,225	6,625	95,672
Tennessee.....	39,088	39,525	53,682	47,022	45,481	60,448	43,331	45,052	58,649	44,317	43,364	61,762	581,701
Texas.....	85,726	103,731	125,647	103,094	90,510	127,536	104,681	111,802	121,950	106,227	108,372	123,463	1,312,739
Utah.....	6,678	21,415	6,788	6,723	24,031	9,563	3,014	24,991	7,239	6,559	28,364	5,661	151,026
Vermont.....	3,509	7,154	2,510	2,613	6,770	3,264	3,264	7,857	2,411	2,709	9,332	3,219	54,612
Virginia.....	39,078	39,080	48,340	45,702	42,251	49,768	42,766	50,535	42,731	49,349	46,847	43,255	539,702
Washington.....	32,295	34,028	26,065	22,701	37,691	29,314	32,581	31,373	23,301	28,149	27,774	30,084	355,356
West Virginia.....	9,379	13,189	12,577	12,269	14,003	4,481	22,575	16,163	12,241	15,040	15,992	14,052	162,261
Wisconsin.....	34,399	34,863	71,586	33,801	3,991	39,239	35,410	36,556	39,276	40,309	37,337	15,505	424,294
Wyoming.....	11,462	20,737	12,634	12,986	13,272	12,949	13,675	14,897	15,160	14,876	13,083	12,354	174,085
U.S. Total.....	1,470,288	1,535,741	1,736,238	1,610,152	1,576,497	1,761,164	1,624,304	1,692,363	1,861,411	1,763,429	1,705,714	1,715,750	20,053,051

Source: Federal Highway Administration, Monthly Gasoline Reports, 1988.

Diesel Fuel Consumption by States—1989

The table below, prepared by the Federal Highway Administration, shows gross gallons of special fuels, but this is primarily diesel fuel. Included are small amounts of liquefied

petroleum gases. In most cases, FHA says, the data reflect retail sales. This is a preliminary report for 1989 and includes some estimates by NPN to offset late reporting by some states.

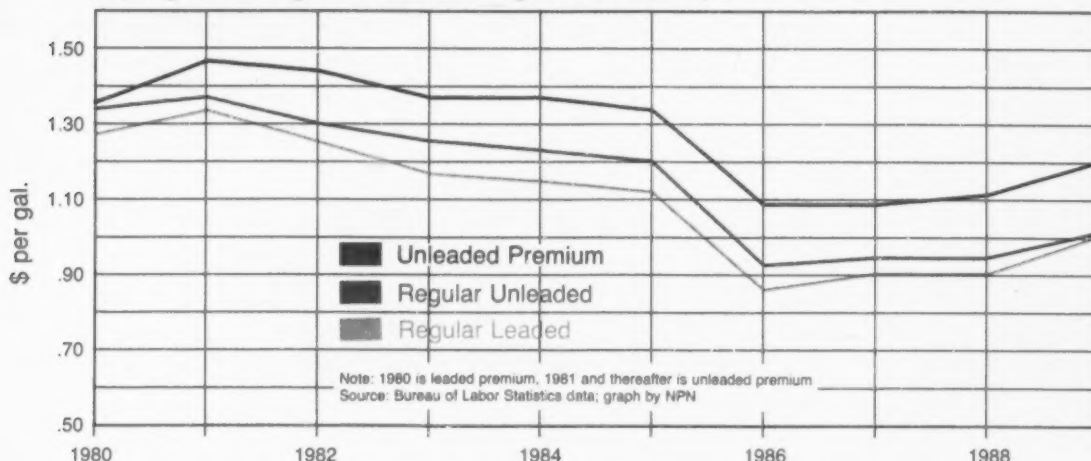
(Add 000 gal.)

State	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Alabama.....	63,470	31,569	27,244	66,113	35,273	45,158	52,996	38,906	46,222	55,735	39,059	44,065	545,810
Alaska.....	3,294	4,000	4,179	5,485	10,310	4,838	8,278	32,374	14,893	10,028	4,229	10,436	97,586
Arizona.....	25,852	19,706	23,173	35,077	22,587	27,251	27,025	29,184	26,510	26,647	25,729	29,855	318,396
Arkansas.....	16,162	52,374	20,015	36,952	35,863	32,603	36,699	32,273	31,453	44,134	32,070	37,186	407,964
California.....	138,838	138,838	138,838	133,375	150,437	165,354	149,977	174,795	202,903	155,090	157,938	237,858	1,944,331
Colorado.....	11,991	11,452	15,365	13,897	13,279	17,587	15,718	18,785	20,382	17,897	18,378	18,986	187,715
Connecticut.....	14,563	13,019	18,483	16,732	17,146	18,081	18,155	19,667	18,986	18,808	18,666	19,511	211,997
Delaware.....	5,666	11,991	4,263	5,547	7,077	4,522	6,067	6,219	6,219	8,616	6,533	4,246	74,966
Dist. of Col.....	1,731	1,815	1,913	1,977	1,922	2,047	2,063	2,020	2,062	1,922	1,891	1,974	23,337
Florida.....	76,024	74,742	73,131	79,808	74,477	77,709	72,528	65,602	74,431	65,488	74,101	73,458	881,449
Georgia.....	75,959	68,285	71,136	74,124	66,751	75,784	62,869	75,784	63,067	81,407	65,306	67,281	847,733
Hawaii.....	1,731	1,545	1,977	2,060	1,808	2,179	2,821	1,872	1,853	2,413	1,918	1,678	24,055
Idaho.....	13,741	13,043	8,080	8,362	13,320	4,876	6,570	18,415	6,074	10,335	15,844	2,174	116,534
Illinois.....	66,820	60,719	67,945	69,820	69,143	73,180	73,066	64,507	68,399	74,418	70,582	70,582	846,979
Indiana.....	40,044	62,135	82,125	56,538	54,326	93,973	55,845	33,009	60,500	60,500	60,500	60,500	725,995
Iowa.....	27,443	26,112	32,446	29,314	28,827	32,127	27,029	28,381	31,412	31,455	27,584	32,101	354,022
Kansas.....	17,840	34,093	20,423	32,155	27,442	24,793	29,537	25,196	28,682	20,508	14,779	19,913	295,631
Kentucky.....	29,874	65,312	54,003	61,646	58,009	56,903	53,653	59,602	58,361	59,405	53,501	53,252	673,521
Louisiana.....	28,520	26,845	28,981	39,331	31,093	38,007	32,297	31,923	36,806	32,111	28,756	32,243	386,915
Maine.....	16,928	16,361	13,006	16,393	12,493	10,223	18,778	13,527	14,508	16,668	20,208	13,695	201,587
Maryland.....	23,861	18,886	26,650	22,296	26,992	28,007	24,880	28,818	24,006	25,588	25,508	38,110	355,307
Massachusetts.....	17,921	25,327	17,143	23,996	25,808	25,930	21,015	23,553	23,002	21,986	24,178	23,027	273,086
Michigan.....	25,974	37,760	45,861	51,230	34,783	66,248	39,746	33,752	67,665	35,635	36,123	60,691	535,470
Minnesota.....	18,799	30,228	25,942	26,047	28,854	29,282	28,306	25,541	30,534	34,345	26,597	21,767	326,162
Mississippi.....	21,389	20,033	26,647	33,380	22,746	27,667	30,190	26,572	28,159	34,349	22,264	27,794	321,190
Missouri.....	54,692	41,305	66,742	49,686	41,411	69,616	48,123	40,346	65,122	64,641	56,205	51,386	649,277
Montana.....	11,726	7,266	8,586	11,272	7,295	11,779	12,273	7,167	12,835	13,082	7,392	9,389	112,670
Nebraska.....	13,436	14,992	20,073	15,349	19,215	19,564	13,950	21,078	18,635	16,936	19,190	18,305	210,723
Nevada.....	7,152	7,889	17,777	6,563	10,483	14,402	8,726	12,318	14,378	9,760	14,837	8,304	132,007
New Hampshire.....	6,860	6,104	5,088	6,039	3,428	5,231	5,542	3,772	4,678	5,917	4,079	3,552	60,208
New Jersey.....	37,761	31,950	40,364	34,949	36,031	38,554	32,454	34,814	31,341	32,404	31,817	35,035	420,421
New Mexico.....	39,330	12,187	1,679	29,922	21,364	714	47,012	877	877	44,811	8,728	855	208,354
New York.....	16,066	58,303	78,538	52,138	58,884	66,056	59,742	59,181	61,493	58,265	30,055	63,352	661,083
North Carolina.....	35,122	54,136	57,269	44,100	58,141	59,464	45,143	52,745	55,453	57,949	47,371	58,667	621,760
North Dakota.....	5,255	7,401	6,387	8,020	7,149	9,640	7,890	7,495	8,951	9,890	7,402	7,969	93,429
Ohio.....	70,526	71,052	73,646	68,687	77,133	76,232	64,093	87,446	72,566	84,668	103,650	77,245	926,944
Oklahoma.....	36,046	31,134	35,168	35,245	31,845	32,513	35,144	31,074	31,814	35,457	26,089	36,450	397,978
Oregon (a).....	—	—	—	—	—	—	—	—	—	—	—	—	—
Pennsylvania.....	76,572	73,006	81,712	78,667	81,076	74,738	74,927	85,353	66,137	85,135	—	75,916	934,169
Rhode Island.....	4,683	4,683	4,683	4,645	4,645	4,645	4,715	4,715	4,715	3,810	3,810	3,810	53,559
South Carolina.....	23,636	19,529	24,315	29,416	21,269	30,085	25,954	23,987	24,927	29,239	19,416	34,424	306,197
South Dakota.....	8,755	7,465	7,251	7,102	7,407	7,331	7,538	8,369	8,056	8,002	8,224	8,265	93,765
Tennessee.....	34,558	47,587	60,927	48,765	49,334	46,390	44,167	50,080	55,926	54,884	41,041	56,530	590,169
Texas.....	97,504	109,942	131,080	113,707	102,457	136,965	115,461	112,149	128,787	125,647	108,992	114,723	1,381,100
Utah.....	15,899	6,311	6,311	8,402	22,200	8,387	2,801	7,459	8,158	29,997	6,549	10,592	131,426
Vermont.....	2,360	7,423	2,705	1,854	7,096	1,995	1,561	7,319	2,842	1,586	4,079	8,336	46,798
Virginia.....	45,036	38,433	46,117	47,099	43,653	53,484	41,186	51,139	42,821	49,812	41,031	44,123	543,933
Washington.....	36,107	39,295	18,699	30,798	34,567	24,875	28,158	14,748	49,873	23,753	38,056	43,647	382,586
West Virginia.....	17,166	10,645	16,431	11,354	10,907	12,557	13,018	11,391	14,005	20,306	11,521	12,783	162,084
Wisconsin.....	35,482	34,902	39,112	35,191	38,494	39,058	35,366	40,010	38,705	41,745	39,124	37,900	455,069
Wyoming.....	12,385	16,082	13,448	19,593	13,604	14,860	14,995	14,995	14,995	14,995	14,995	14,995	179,942
U.S. Total.....	1,529,852	1,625,212	1,738,291	1,739,852	1,679,652	1,856,663	1,691,889	1,718,514	1,834,386	1,858,415	1,635,790	1,841,550	20,774,065

(a) Oregon no longer collects diesel data.

Source: Federal Highway Administration, Monthly Gasoline Reports, 1989.

Average Pump Prices for Gasoline 1980-1989
(\$ per gal. including taxes and reflecting full-service, etc.)



Gasoline Prices by Grades and Months

(U.S. averages, retail, in ¢ per gal. including taxes and types of service.)

		Leaded Regular	Unleaded Regular	Unleaded Premium (a)	Average for All Types
1989	January	87.6	91.8	109.1	94.4
	February	88.6	92.6	110.0	95.5
	March	90.7	94.0	111.5	97.4
	April	104.7	106.5	122.1	109.8
	May	109.8	111.9	127.8	115.2
	June	109.3	111.4	127.8	115.0
	July	107.5	109.2	126.4	113.2
	August	103.4	105.7	123.3	109.6
	September	100.7	102.9	121.3	107.3
	October	100.1	102.7	120.9	107.1
	November	97.5	99.9	118.7	104.6
	December	96.1	98.0	117.8	103.0
	Average	99.7	102.2	119.7	106.0
1988	January	88.1	93.3	109.5	94.7
	February	85.9	91.3	108.2	92.8
	March	85.0	90.4	107.4	92.0
	April	88.3	93.0	108.8	94.6
	May	91.1	95.5	110.5	97.0
	June	91.0	95.5	111.1	97.1
	July	92.3	96.7	112.3	98.4
	August	94.5	98.7	113.8	100.4
	September	93.3	97.4	113.0	99.2
	October	91.0	95.6	111.9	97.5
	November	90.4	94.9	111.6	97.2
	December	88.5	93.0	110.1	95.3
	Average	90.0	94.6	110.7	96.4
1987	January	80.6	86.2	100.7	86.8
	February	84.8	90.5	104.7	91.1
	March	85.6	91.2	105.2	91.8
	April	87.9	93.4	107.3	94.0
	May	88.8	94.1	107.9	94.8
	June	90.6	95.8	109.8	96.6
	July	92.1	97.1	111.5	98.0
	August	94.6	99.5	113.9	100.4
	September	94.0	99.0	113.6	100.0
	October	93.1	97.6	112.8	98.8
	November	92.8	97.6	112.5	98.7
	December	91.2	96.1	111.9	97.5
	Average	89.7	94.8	109.3	95.7
Average	1988	85.7	92.7	108.5	93.1
	1985	111.5	120.2	134.0	119.6
	1984	112.9	121.2	136.6(a)	119.8
	1983	115.7	124.1	138.3(a)	122.5
	1982	122.2	129.6	141.5(a)	128.1
	1981 (b)	131.1	137.8*	147.0(a)	135.3
	1980	119.1	124.5	NA	122.1
	1979	62.6	67.0	NA	65.2

(a) In January 1984, this series was switched from leaded premium to unleaded premium to reflect changing market conditions.

(b) Data for 1981 and earlier are for leaded premium. Beginning in September 1981, Bureau of Labor Statistics changed the weights used in the calculation of average motor gasoline prices. In the fourth column above, gasohol is included and unleaded premium is weighted more heavily.

Source: Energy Information Administration, Monthly Energy Review, October 1989.

Retail Gasoline Prices by Months and Grades

All Types

Selected Local Areas	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
Chicago-N'Western Ind.	\$1.012	\$1.020	\$1.027	\$1.178	\$1.239	\$1.228	\$1.206	\$1.172	\$1.165	\$1.183	\$1.159	\$1.136	\$1.143
L.A.-Long Beach, Anaheim.	.864	.881	.945	1.152	1.167	1.153	1.111	1.048	.983	.970	.930	.918	1.010
N.Y., N.Y.-N'Eastern N.J.	1.036	1.047	1.055	1.106	1.174	1.187	1.178	1.152	1.117	1.114	1.109	1.100	1.114
Philadelphia, Pa.-N.J.	.959	.966	.978	1.047	1.131	1.142	1.144	1.093	1.093	1.100	1.087	1.083	1.088
San Francisco-Oakland	.943	.950	.989	1.153	1.202	1.201	1.177	1.155	1.082	1.064	1.044	1.028	1.082
Baltimore, Md.	1.030	1.034	1.035	1.084	1.143	1.151	1.143	1.138	1.128	1.117	1.114	1.112	1.102
Boston, Mass.	1.020	1.013	1.012	1.043	1.107	1.125	1.114	1.108	1.103	1.103	1.102	1.097	1.078
Cleveland, Ohio	.942	.968	.986	1.144	1.181	1.151	1.118	1.091	1.070	1.097	1.052	1.027	1.068
Miami, Fla.	1.019	1.018	1.013	1.056	1.135	1.140	1.107	1.074	1.039	1.032	1.018	1.012	1.055
St. Louis, Mo.-Ill.	.882	.896	.886	1.019	1.101	1.092	1.071	1.015	.983	.985	.974	.955	.988
Washington-Md.-Va.	1.118	1.119	1.121	1.158	1.217	1.232	1.235	1.220	1.204	1.196	1.202	1.203	1.185
Dallas-Fort Worth, Tex.	.876	.871	.873	.981	1.050	1.045	1.027	.996	.968	.968	.957	.947	.963
Detroit, Mich.	.950	.951	.953	1.109	1.134	1.123	1.093	1.030	1.025	1.036	1.011	.985	1.033
Houston, Tex.	.913	.916	.919	1.011	1.060	1.065	1.059	1.038	1.025	1.012	1.011	1.006	1.002
Pittsburgh, Pa.	.935	.930	.925	1.040	1.104	1.111	1.065	1.017	.978	.976	.950	.948	.998

Leaded Regular

Chicago-N'Western Ind.	.926	.900	.934	1.121	1.171	NA	NA	NA	NA	NA	NA	NA	1.010
L.A.-Long Beach, Anaheim.	.830	.844	.904	1.107	1.115	1.102	1.062	1.000	.944	.929	.904	.889	.969
N.Y., N.Y.-N'Eastern N.J.	.912	.909	.945	.985	1.061	1.091	1.069	1.060	NA	NA	NA	NA	1.004
Philadelphia-N.J.	.935	.950	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	.942
San Francisco-Oakland	.827	.841	.876	1.071	1.108	1.107	1.068	1.044	.974	.952	.931	.920	.976
Baltimore, Md.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Boston, Mass.	.972	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	.972
Cleveland, Ohio	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Miami, Fla.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
St. Louis, Mo.-Ill.	.824	.833	.826	.975	1.051	1.034	1.022	.973	.957	.950	.954	.940	.945
Washington-Md.-Va.	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dallas-Fort Worth, Tex.	.854	.846	.847	.969	1.039	1.027	1.015	.987	.971	.975	.968	.964	.955
Detroit, Mich.	.899	.900	.906	1.087	NA	NA	NA	NA	NA	NA	NA	NA	.948
Houston, Tex.	.827	.833	.839	.973	NA	NA	NA	NA	NA	NA	NA	NA	.868
Pittsburgh, Pa.	.949	.941	.936	1.056	NA	NA	NA	NA	NA	NA	NA	NA	.970

Unleaded Regular

Chicago-N'Western Ind.	.980	.993	.995	1.147	1.208	1.196	1.170	1.131	1.121	1.141	1.116	1.091	1.107
L.A.-Long Beach, Anaheim.	.834	.854	.923	1.139	1.154	1.140	1.093	1.027	.952	.941	.893	.881	.986
N.Y., N.Y.-N'Eastern N.J.	.967	.975	.983	1.037	1.100	1.111	1.103	1.077	1.036	1.037	1.026	1.017	1.039
Philadelphia-N.J.	.910	.915	.900	.955	1.044	1.050	1.046	1.010	.992	.992	.974	.984	.979
San Francisco-Oakland	.943	.948	.983	1.134	1.195	1.199	1.177	1.154	1.073	1.058	1.041	1.024	1.078
Baltimore, Md.	.976	.978	.979	1.028	1.085	1.094	1.086	1.075	1.066	1.049	1.043	1.040	1.041
Boston, Mass.	.971	.965	.965	1.003	1.070	1.081	1.070	1.064	1.040	1.037	1.035	1.028	1.027
Cleveland, Ohio	.886	.916	.935	1.097	1.132	1.102	1.065	1.037	1.024	1.046	1.003	.979	1.018
Miami, Fla.	.966	.967	.962	1.006	1.075	1.078	1.038	1.002	.974	.968	.958	.950	.985
St. Louis, Mo.-Ill.	.859	.876	.863	.986	1.080	1.072	1.043	.979	.944	.946	.931	.909	.958
Washington-Md.-Va.	1.051	1.053	1.048	1.086	1.146	1.157	1.158	1.139	1.118	1.110	1.119	1.118	1.108
Dallas-Fort Worth, Tex.	.856	.852	.854	.958	1.029	1.019	.998	.968	.936	.937	.922	.909	.936
Detroit, Mich.	.948	.950	.946	1.100	1.124	1.116	1.088	1.024	1.048	1.027	1.004	.973	1.026
Houston, Tex.	.872	.873	.878	.969	1.022	1.025	1.017	.993	.974	.961	.961	.953	.958
Pittsburgh, Pa.	.900	.896	.890	1.007	1.069	1.079	1.037	.985	.952	.946	.920	.917	.966

Unleaded Premium

Chicago-N'Western Ind.	1.189	1.192	1.204	1.328	1.391	1.379	1.366	1.334	1.332	1.348	1.329	1.311	1.308
L.A.-Long Beach, Anaheim.	1.047	1.063	1.117	1.302	1.330	1.318	1.290	1.234	1.179	1.156	1.117	1.107	1.188
N.Y., N.Y.-N'Eastern N.J.	1.165	1.177	1.181	1.228	1.302	1.316	1.306	1.278	1.250	1.242	1.244	1.235	1.243
Philadelphia-N.J.	1.106	1.111	1.130	1.189	1.264	1.276	1.278	1.247	1.231	1.231	1.228	1.227	1.209
San Francisco-Oakland	1.053	1.056	1.089	1.247	1.304	1.293	1.283	1.263	1.201	1.182	1.157	1.137	1.188
Baltimore, Md.	1.167	1.172	1.174	1.221	1.279	1.288	1.281	1.225	1.213	1.208	1.209	1.210	1.220
Boston, Mass.	1.139	1.157	1.156	1.193	1.260	1.259	1.253	1.252	1.238	1.235	1.232	1.227	1.216
Cleveland, Ohio	1.096	1.116	1.136	1.291	1.328	1.301	1.269	1.248	1.226	1.264	1.220	1.189	1.223
Miami, Fla.	1.093	1.091	1.085	1.125	1.216	1.226	1.201	1.168	1.125	1.116	1.099	1.094	1.136
St. Louis, Mo.-Ill.	1.100	1.113	1.108	1.206	1.289	1.283	1.266	1.235	1.190	1.199	1.185	1.172	1.195
Washington-Md.-Va.	1.314	1.313	1.313	1.336	1.390	1.411	1.405	1.398	1.392	1.393	1.388	1.392	1.370
Dallas-Fort Worth, Tex.	.982	.981	.982	1.078	1.140	1.154	1.139	1.101	1.072	1.067	1.065	1.058	1.068
Detroit, Mich.	1.117	1.113	1.117	1.229	1.245	1.220	1.187	1.127	1.137	1.134	1.105	1.110	1.153
Houston, Tex.	1.069	1.074	1.075	1.131	1.174	1.184	1.182	1.172	1.160	1.147	1.143	1.145	1.138
Pittsburgh, Pa.	1.096	1.086	1.091	1.193	1.254	1.264	1.204	1.179	1.116	1.135	1.106	1.107	1.152

and Population Areas—1989^(a)

All Types

Population Sizes and Regions

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
U.S. city average.....	\$.944	\$.955	\$.974	\$1.098	\$1.152	\$1.150	\$1.132	\$1.096	\$1.073	\$1.071	\$1.046	\$1.030	\$1.057
Region and area size													
Northeast urban.....	1.010	1.015	1.012	1.073	1.149	1.160	1.150	1.119	1.101	1.102	1.093	1.087	1.089
Size A—More than 1,200,000...	1.007	1.013	1.011	1.067	1.142	1.154	1.146	1.116	1.100	1.102	1.095	1.089	1.086
Size B—500,000 to 1,200,000...	1.064	1.072	1.059	1.130	1.200	1.216	1.197	1.171	1.139	1.138	1.114	1.108	1.134
Size C—50,000 to 500,000.....	.966	.965	.971	1.073	1.151	1.146	1.123	1.077	1.051	1.049	1.037	1.033	1.053
North Central urban.....	.938	.946	.959	1.116	1.161	1.149	1.131	1.081	1.082	1.085	1.053	1.020	1.060
Size A—More than 1,200,000...	.952	.959	.976	1.127	1.168	1.166	1.144	1.101	1.104	1.100	1.074	1.045	1.173
Size B—360,000 to 1,200,000...	.895	.895	.910	1.087	1.122	1.083	1.047	1.006	1.008	1.021	.987	.960	1.001
Size C—50,000 to 360,000.....	.962	.965	.973	1.134	1.175	1.145	1.146	1.069	1.075	1.073	1.040	1.010	1.064
Size D—Nonmetropolitan (less than 50,000).....	.904	.932	.925	1.081	1.163	1.152	1.155	1.085	1.073	1.097	1.046	.996	1.050
South urban.....	.949	.954	.961	1.073	1.135	1.136	1.122	1.082	1.060	1.061	1.032	1.021	1.048
Size A—More than 1,200,000...	.968	.967	.969	1.050	1.117	1.119	1.104	1.086	1.055	1.050	1.017	1.006	1.042
Size B—450,000 to 1,200,000...	.944	.948	.959	1.090	1.145	1.144	1.130	1.064	1.063	1.065	1.049	1.048	1.054
Size C—50,000 to 450,000.....	.925	.940	.949	1.077	1.139	1.140	1.126	1.092	1.062	1.065	1.030	1.005	1.045
Size D—Nonmetropolitan (less than 50,000).....	.972	.974	.970	1.093	1.168	1.168	1.152	1.110	1.070	1.082	1.054	1.036	1.070
West urban.....	.896	.910	.968	1.140	1.170	1.161	1.130	1.110	1.056	1.043	1.014	1.001	1.049
Size A—More than 1,250,000...	.886	.901	.957	1.133	1.162	1.153	1.116	1.102	1.044	1.026	.992	.982	1.037
Size C—50,000 to 330,000.....	.899	.911	.933	1.108	1.161	1.131	1.113	1.059	1.002	1.023	1.002	.987	1.027

Leaded Regular

U.S. city average.....	\$.876	\$.886	\$.907	\$1.047	\$1.098	\$1.093	\$1.075	\$1.034	\$1.007	\$1.001	\$.975	\$.961	\$.996
Northeast urban.....	.930	.921	.920	.975	1.052	1.080	1.070	1.047	1.050	1.071	1.075	1.048	1.019
Size A—More than 1,200,000...	.933	.918	.919	.955	1.028	1.059	1.050	1.031	NA	NA	NA	NA	.986
Size B—500,000 to 1,200,000...	.895	.896	.892	.985	1.078	1.131	NA	NA	NA	NA	NA	NA	.979
Size C—50,000 to 500,000.....	.922	.925	.928	1.054	NA	NA	NA	NA	NA	NA	NA	NA	.957
North Central urban.....	.890	.904	.913	1.075	1.125	1.111	1.087	1.028	1.041	1.037	1.015	.977	1.017
Size A—More than 1,200,000...	.885	.894	.907	1.066	1.112	1.104	1.088	1.042	1.035	1.029	1.015	.985	1.013
Size B—360,000 to 1,200,000...	.862	.869	.891	1.082	1.113	NA	NA	NA	NA	NA	NA	NA	.963
Size C—50,000 to 360,000.....	.931	.944	.960	1.097	1.140	1.107	1.118	1.033	1.063	1.051	1.008	.964	1.034
Size D—Nonmetropolitan (less than 50,000).....	.886	.918	.899	1.073	1.149	1.136	1.121	1.011	1.042	1.046	NA	.976	1.023
South urban.....	.881	.889	.899	1.021	1.086	1.083	1.067	1.034	1.012	1.019	.992	.995	.923
Size A—More than 1,200,000...	.864	.861	.865	.972	1.047	1.042	1.024	1.021	.982	.985	.946	.968	.964
Size B—450,000 to 1,200,000...	.910	.913	.932	1.067	1.110	1.109	1.098	1.043	1.052	1.063	1.057	1.111	1.038
Size C—50,000 to 450,000.....	.853	.875	.884	1.013	1.087	1.084	1.063	1.029	.994	.996	.970	.936	.982
Size D—Nonmetropolitan (less than 50,000).....	.924	.927	.931	1.042	NA	NA	NA	NA	NA	NA	NA	NA	.958
West urban.....	.848	.862	.906	1.081	1.107	1.096	1.071	1.035	.986	.972	.945	.933	.966
Size A—More than 1,250,000...	.840	.852	.897	1.080	1.103	1.092	1.061	1.025	.973	.955	.929	.918	.977
Size C—50,000 to 330,000.....	.856	.873	.894	1.065	1.119	1.097	1.079	1.034	.976	.988	.958	.940	.990

Unleaded Regular

U.S. city average.....	\$.918	\$.926	\$.940	\$1.065	\$1.119	\$1.114	\$1.092	\$1.057	\$1.029	\$1.027	\$.999	\$.980	\$1.022
Region and area size													
Northeast urban.....	.962	.966	.960	1.023	1.096	1.103	1.090	1.062	1.030	1.030	1.017	1.009	1.029
Size A—More than 1,200,000...	.948	.955	.952	1.007	1.081	1.089	1.078	1.052	1.021	1.021	1.010	1.002	1.018
Size B—500,000 to 1,200,000...	1.045	1.059	1.040	1.109	1.171	1.179	1.162	1.133	1.095	1.092	1.058	1.050	1.099
Size C—50,000 to 500,000.....	.924	.920	.927	1.032	1.107	1.099	1.077	1.027	.995	.994	.981	.977	1.005
North Central urban.....	.914	.919	.929	1.084	1.129	1.115	1.095	1.050	1.047	1.052	1.018	.986	1.028
Size A—More than 1,200,000...	.920	.925	.937	1.087	1.128	1.123	1.100	1.058	1.058	1.056	1.028	.998	1.034
Size B—360,000 to 1,200,000...	.859	.859	.876	1.049	1.085	1.044	1.010	.969	.967	.983	.941	.922	.963
Size C—50,000 to 360,000.....	.964	.960	.968	1.129	1.167	1.140	1.142	1.062	1.063	1.062	1.030	1.002	1.057
Size D—Nonmetropolitan (less than 50,000).....	.909	.929	.921	1.073	1.158	1.146	1.148	1.087	1.071	1.098	1.046	.988	1.047
South urban.....	.920	.924	.925	1.034	1.098	1.096	1.078	1.037	1.009	1.008	.980	.963	1.006
Size A—More than 1,200,000...	.931	.930	.929	1.008	1.073	1.073	1.056	1.027	.996	.989	.959	.945	.993
Size B—450,000 to 1,200,000...	.903	.909	.910	1.039	1.103	1.098	1.077	1.018	1.003	1.006	.988	.974	1.002
Size C—50,000 to 450,000.....	.916	.925	.934	1.061	1.124	1.123	1.103	1.067	1.037	1.038	1.002	.977	1.025
Size D—Nonmetropolitan (less than 50,000).....	.955	.956	.946	1.062	1.127	1.128	1.112	1.070	1.016	1.028	.997	.979	1.031
West urban.....	.883	.899	.952	1.126	1.158	1.148	1.111	1.090	1.028	1.015	.981	.970	1.029
Size A—More than 1,250,000...	.867	.884	.943	1.119	1.150	1.143	1.100	1.085	1.016	.999	.959	.950	1.018
Size C—50,000 to 330,000.....	.901	.912	.934	1.109	1.168	1.130	1.114	1.059	1.000	1.021	.992	.977	1.026

(a) These prices are in \$/gal. and include federal and state taxes and are representative of full service, self service and mini service. The selected local areas and the population groups are Standard Metropolitan Statistical Areas as defined by BLS and the U.S. Census Bureau.

Source: Bureau of Labor Statistics, Dept. of Commerce.

(Continued on Next Page)

Retail Gasoline Prices (continued)^(a)

Population Sizes and Regions

Unleaded Premium

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Average For Year
U.S. city average	\$1.091	\$1.100	\$1.115	\$1.221	\$1.278	\$1.278	\$1.284	\$1.233	\$1.213	\$1.209	\$1.187	\$1.170	\$1.196
Region and area size													
Northeast urban	1.152	1.159	1.151	1.214	1.289	1.296	1.285	1.262	1.241	1.237	1.234	1.229	1.229
Size A—More than 1,200,000	1.150	1.160	1.161	1.212	1.285	1.293	1.285	1.263	1.241	1.237	1.235	1.230	1.229
Size B—500,000 to 1,200,000	1.186	1.182	1.180	1.244	1.325	1.333	1.303	1.288	1.266	1.265	1.250	1.244	1.255
Size C—50,000 to 500,000	1.124	1.125	1.137	1.206	1.285	1.278	1.251	1.214	1.198	1.204	1.193	1.189	1.200
North Central urban	1.103	1.099	1.105	1.255	1.299	1.290	1.276	1.231	1.234	1.234	1.210	1.175	1.209
Size A—More than 1,200,000	1.155	1.129	1.140	1.279	1.323	1.327	1.310	1.271	1.272	1.269	1.254	1.229	1.248
Size B—500,000 to 1,200,000	1.044	1.046	1.062	1.226	1.280	1.223	1.189	1.144	1.151	1.161	1.135	1.102	1.123
Size C—50,000 to 350,000	1.004	1.012	1.008	1.198	1.248	1.207	1.198	1.123	1.122	1.132	1.107	1.081	1.120
Size D—Nonmetropolitan (less than 50,000)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
South urban	1.085	1.077	1.081	1.182	1.243	1.245	1.237	1.195	1.176	1.176	1.144	1.129	1.162
Size A—More than 1,200,000	1.114	1.115	1.108	1.172	1.237	1.245	1.232	1.208	1.174	1.170	1.132	1.114	1.168
Size B—500,000 to 1,200,000	1.028	1.039	1.048	1.173	1.233	1.230	1.225	1.162	1.162	1.161	1.141	1.139	1.145
Size C—50,000 to 450,000	1.086	1.100	1.109	1.228	1.271	1.268	1.263	1.228	1.205	1.205	1.164	1.143	1.189
Size D—Nonmetropolitan (less than 50,000)	1.052	1.055	1.051	1.171	1.261	1.261	1.241	1.194	1.178	1.192	1.167	1.137	1.163
West urban	1.048	1.057	1.122	1.280	1.317	1.309	1.278	1.273	1.230	1.215	1.191	1.176	1.208
Size A—More than 1,250,000	1.050	1.081	1.108	1.268	1.303	1.292	1.267	1.268	1.227	1.204	1.175	1.160	1.198
Size C—50,000 to 330,000	1.053	1.048	1.076	1.262	1.294	1.275	1.242	1.170	1.120	1.168	1.172	1.163	1.170

Retail Gasoline Prices For Selected Areas^(a)

Standard Metropolitan Statistical Areas	1989				1988				1987			
	Lead Reg.	Unld. Reg.	Unld. Prem.	All Types	Lead Reg.	Unld. Reg.	Unld. Prem.	All Types	Lead Reg.	Unld. Reg.	Unld. Prem.	All Types
U.S. City Average	\$.960	\$1.015	\$1.200	\$1.059	\$.900	\$.946	\$1.107	\$.964	\$.897	\$.948	\$1.093	\$.979
Chicago-N/Western Ind.	1.010	1.107	1.308	1.143	.982	1.016	1.201	1.044	.968	1.004	1.184	1.025
L.A.-Long Beach, Anaheim	.969	.986	1.188	1.010	.894	.910	1.105	.933	.901	.931	1.107	.943
N.Y., N.Y.-N/Eastern N.J.	1.004	1.039	1.243	1.114	.919	.958	1.144	1.020	.903	.936	1.104	.986
Philadelphia, PA-N.J.	.942	.979	1.209	1.068	.906	.895	1.083	.938	.891	.895	1.070	.929
San Francisco-Oakland	.976	1.078	1.188	1.082	.907	1.011	1.108	1.006	.870	.955	1.081	.949
Baltimore, Md.	NA	1.041	1.220	1.102	.956	.980	1.160	1.023	.913	.935	1.100	.970
Boston, Mass.	.972	1.027	1.216	1.078	.923	.972	1.133	1.006	.883	.929	1.080	.958
Cleveland, Ohio	NA	1.018	1.223	1.068	.868	.948	1.161	.985	.888	.941	1.143	.961
Miami, Fla.	NA	.995	1.136	1.055	NA	.967	1.096	1.025	.949	.983	1.087	1.023
St. Louis, Mo.-Ill.	.945	.958	1.195	.988	.865	.903	1.118	.921	.853	.899	1.085	.910
Washington, D.C.-Md.-Va.	NA	1.108	1.370	1.185	.932	1.044	1.302	1.101	.911	.998	1.245	1.042
Dallas-Fort Worth, Tex.	.955	.936	1.068	.963	.875	.888	1.025	.906	.856	.881	1.006	.892
Detroit, Mich.	.948	1.026	1.153	1.033	.911	.969	1.114	.967	.900	.972	1.097	.964
Houston, Tex.	.868	.958	1.138	1.002	.852	.871	1.061	.911	.852	.880	1.068	.908
Pittsburgh, Pa.	.970	.966	1.152	.998	.882	.882	1.065	.904	.887	.899	1.078	.916

(a) See footnote on preceding page.

Source: Bureau of Labor Statistics, U.S. Dept. of Commerce.

Wholesale Price Trends Through 1989

Refinery products in eight refinery markets representing total U.S.

Crude

Year	Refinery products in eight refinery markets representing total U.S.					Crude	
	Motor gasoline c/gal.	Kero-sine c/gal.	Light fuel c/gal.	Heavy fuel c/gal.	Average 4 products c/gal. \$/bbl.	8 areas \$/bbl.	Products vs. crude \$/bbl.
1989 (a)	59.15	60.78	56.02	40.87	43.76 18.38	15.89	2.49
1988	50.31	50.72	46.10	38.72	46.22 19.41	12.58	6.83
1987	53.22	56.75	52.25	45.36	50.89 21.37	15.41	5.96
1986	47.74	49.92	44.91	36.23	43.97 18.47	12.51	5.96
1985	81.11	81.69	76.66	56.41	73.06 30.69	24.09	6.60
1984	81.14	84.75	79.62	59.14	74.49 31.29	25.88	5.41
1983	86.97	85.12	80.05	57.30	76.94 32.31	26.19	6.12
1982	94.56	97.18	91.95	57.80	83.27 34.97	28.52	6.45
1981	101.63	101.03	97.20	61.17	88.75 37.28	31.77	5.51

(a) Preliminary.

Source: Independent Petroleum Assn. of America. Product figures reflect trends in prices but not the actual sales realizations for producers or refiners.

Supplier Gasoline Prices, by Type of Seller

(¢ per gal., excluding taxes)

Year Month	Major Refiners			Other Refiners			Average		
	Sales to End-Users			Sales to End-Users			Sales to End-Users		
	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale
1989									
January.....	67.8	56.4	58.0	62.7	51.8	51.0	66.6	54.6	56.3
February.....	68.3	58.2	58.8	63.3	53.2	52.7	67.1	55.9	57.5
March.....	70.5	61.0	62.4	65.8	57.8	57.0	69.4	59.6	61.2
April.....	83.1	75.0	75.2	80.4	74.9	70.6	82.5	74.9	74.2
May.....	87.3	77.8	77.7	84.3	73.5	72.4	86.5	76.0	76.5
June.....	86.2	75.4	75.4	82.6	73.2	69.4	85.3	74.6	74.0
July.....	83.8	70.5	70.7	81.0	67.3	63.7	83.2	69.3	69.1
August.....	78.4	63.5	64.5	75.5	59.5	56.5	77.8	62.1	62.7
September.....	76.5	66.0	67.0	73.5	64.5	61.9	75.8	65.5	65.8
October.....	76.4	66.0	65.6	72.8	63.4	59.8	75.6	65.1	64.3
November.....	74.6	62.6	62.9	70.2	60.0	56.3	73.6	61.7	61.5
December.....	74.0	61.7	63.0	69.1	60.1	56.5	72.9	61.3	61.6
1989 Average ..	77.4	66.2	66.9	73.6	63.4	60.8	76.6	65.2	65.5
1988									
January.....	67.0	52.9	55.2	62.9	49.8	47.5	65.9	51.9	53.4
February.....	65.3	54.5	55.4	61.2	50.1	48.5	64.1	53.0	53.8
March.....	64.4	53.9	55.4	60.4	51.4	49.2	63.2	53.1	53.9
April.....	67.6	58.1	59.9	64.2	56.2	54.3	66.8	57.4	58.6
May.....	70.1	60.0	61.3	66.5	58.3	55.4	69.1	59.5	59.9
June.....	69.8	59.9	60.8	66.0	58.0	54.8	68.7	59.3	59.3
July.....	71.6	62.4	63.8	67.6	58.6	58.2	70.5	60.8	62.4
August.....	73.6	62.5	62.9	69.8	59.7	56.5	72.6	61.5	61.4
September.....	72.1	58.6	59.8	67.9	54.9	52.3	71.0	57.2	58.0
October.....	70.2	57.1	59.2	66.0	51.3	51.5	69.1	54.7	57.3
November.....	69.6	59.1	60.0	65.7	52.0	52.6	68.5	56.1	58.1
December.....	68.2	55.5	56.9	64.0	49.8	49.1	67.1	53.2	54.9
1988 Average ..	69.2	57.8	59.3	65.2	54.1	52.7	68.1	56.4	57.7
1987 Average ..	67.7	59.2	60.1	65.3	55.2	55.0	67.8	57.8	58.9
1986 Average ..	64.1	57.6	54.4	61.2	52.7	48.7	63.2	55.8	53.1
1984 Average ..	92.0	85.7	84.2	90.0	84.9	80.2	91.4	85.6	83.2
1982 Average ..	108.2	101.1	98.3	105.6	100.2	94.3	107.2	100.9	97.3
1980 Average ..	105.6	93.7	95.1	103.0	97.8	91.3	104.6	98.5	94.1

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1989, published March 1990. (Table 13)

Supplier Gasoline Prices, by Grade and Type

(¢ per gal., excluding taxes)

Year Month	Leaded Regular			Unleaded Regular			Unleaded Midgrade			Premium		
	Sales to End-Users			Sales to End-Users			Sales to End-Users			Sales to End-Users		
	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale	Through Company Outlets	Other End-Users	Sales for Resale
1989												
January.....	60.3	51.5	52.4	62.1	52.4	52.4	72.0	64.0	62.3	78.6	63.5	66.8
February.....	61.4	54.9	54.0	62.5	53.7	53.5	71.7	64.1	62.9	79.1	64.6	67.3
March.....	64.3	60.0	58.6	65.0	57.2	57.5	73.3	60.4	64.7	81.1	68.8	70.5
April.....	78.9	76.6	72.7	78.9	72.2	70.7	85.7	81.8	75.7	93.1	82.0	83.7
May.....	82.8	74.4	74.1	82.9	73.5	73.1	89.9	83.7	79.0	97.5	84.4	86.2
June.....	81.6	74.2	72.2	81.4	72.4	70.6	88.6	79.9	76.6	96.7	82.6	83.5
July.....	80.2	67.5	67.8	78.9	67.2	65.3	85.8	72.0	71.7	94.5	77.2	79.2
August.....	75.4	59.5	60.0	73.2	59.7	58.9	80.3	68.8	66.2	89.4	70.6	73.1
September.....	71.9	64.1	63.6	71.2	63.3	62.3	78.6	69.4	68.5	87.4	73.2	75.2
October.....	70.9	63.4	61.7	70.8	63.1	60.5	78.5	67.7	67.0	87.3	71.8	74.1
November.....	68.6	59.3	58.9	68.6	59.6	57.5	76.7	65.4	64.3	85.5	69.0	71.1
December.....	67.3	60.9	58.3	67.6	58.7	57.6	76.0	64.7	64.7	84.9	69.8	71.1
1989 Average ..	71.8	64.1	63.1	72.3	62.8	61.9	80.1	69.4	68.6	87.8	73.5	75.0
1988												
January.....	60.4	51.1	50.1	62.8	50.9	50.9	NA	NA	NA	77.4	60.2	62.6
February.....	58.6	51.9	50.6	61.2	51.8	51.3	NA	NA	NA	75.7	61.6	62.6
March.....	57.8	52.2	51.1	60.3	51.9	51.5	NA	NA	NA	74.8	59.7	62.3
April.....	61.5	57.9	56.2	63.9	55.9	56.0	NA	NA	NA	77.8	65.0	66.8
May.....	63.8	59.2	57.3	66.3	58.2	57.3	NA	NA	NA	79.9	67.2	68.5
June.....	63.4	58.7	56.7	65.6	57.8	56.5	NA	NA	NA	79.8	68.1	68.4
July.....	65.0	61.1	60.3	67.3	59.1	59.3	NA	NA	NA	81.5	69.6	71.7
August.....	67.2	62.1	59.2	69.5	59.8	58.2	NA	NA	NA	83.6	69.0	70.9
September.....	65.6	57.8	55.2	67.6	55.4	54.8	NA	NA	NA	82.3	66.0	68.1
October.....	63.6	53.6	54.0	65.5	53.0	54.0	NA	NA	NA	80.6	63.8	68.0
November.....	62.6	54.1	54.4	65.1	54.3	54.8	NA	NA	NA	80.1	66.3	68.8
December.....	61.1	50.0	50.6	63.3	51.6	51.5	NA	NA	NA	78.8	62.8	65.8
1988 Average ..	62.4	55.5	54.8	64.9	55.0	54.8	NA	NA	NA	79.4	64.9	67.2
1987 Average ..	62.3	57.4	56.5	65.9	56.4	56.9	NA	NA	NA	79.0	65.4	67.1
1986 Average ..	57.8	54.4	50.1	62.4	54.9	52.2	NA	NA	NA	74.8	63.0	61.0
1985 Average ..	84.6	82.0	79.3	92.5	86.1	84.3	NA	NA	NA	103.0	92.8	92.2
1984 Average ..	35.1	82.8	79.5	92.2	86.5	84.2	NA	NA	NA	102.1	93.7	91.6

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1989, published March 1990. (Table 11)

Supplier Product Prices for Resale

(¢ per gal., excluding taxes)

Year Month	Motor Gasoline	Aviation Gasoline	Kerosine- Type Jet Fuel	Propane (Consumer Grade)	Kerosine	No. 1 Distillate	No. 2 Distillate		Average	No. 4 Fuel ^(a)	Residual Fuel Oil
							No. 2 Fuel Oil	No. 2 Diesel Fuel			
1989											
January	56.3	84.0	56.3	24.0	63.1	59.7	53.2	51.1	52.3	44.9	32.6
February	57.5	86.0	55.2	22.7	59.5	58.2	51.0	52.9	51.9	43.5	32.3
March	61.2	86.6	56.5	22.5	61.3	61.8	54.4	56.0	55.1	44.0	32.2
April	74.2	94.2	59.4	22.6	60.3	66.9	56.5	59.9	58.2	56.0	38.2
May	76.5	101.8	56.6	22.1	55.9	62.0	52.5	54.1	53.4	43.9	37.7
June	74.0	101.2	54.5	21.3	53.8	57.9	49.6	51.0	50.4	46.7	35.3
July	69.1	100.9	53.5	20.7	57.0	58.4	50.3	50.6	50.5	44.1	35.7
August	62.7	97.6	54.4	21.6	59.8	60.9	51.2	52.5	51.9	41.6	34.6
September	65.8	96.2	58.6	23.1	63.6	66.8	56.4	58.6	57.6	49.1	35.1
October	64.3	93.3	63.1	24.4	67.4	69.9	60.1	62.4	61.4	51.1	36.7
November	61.5	92.5	63.4	24.4	68.4	70.9	60.4	62.2	61.3	50.3	36.7
December	61.6	92.8	67.4	36.2	81.7	78.2	72.8	68.6	70.9	58.1	42.3
1989 Average	65.5	95.0	58.4	24.6	66.9	66.7	56.5	56.7	56.6	48.0	35.8
1988											
January	53.4	85.9	53.2	26.8	59.2	57.7	52.0	51.0	51.6	47.6	32.4
February	53.8	84.2	52.4	26.6	57.1	54.5	48.9	49.0	48.9	45.9	32.2
March	53.9	84.2	50.4	25.6	54.3	54.7	47.6	49.2	48.4	45.4	28.6
April	56.6	84.2	50.4	25.2	54.2	59.4	50.7	51.9	51.3	44.0	30.2
May	59.9	85.0	51.4	24.9	53.3	58.0	50.1	51.3	50.8	45.7	31.5
June	59.3	85.1	51.0	24.3	50.0	54.0	46.6	47.9	47.3	41.6	31.0
July	62.4	86.1	47.5	21.8	48.3	51.0	43.3	44.0	43.7	39.5	29.5
August	61.4	86.7	47.9	22.1	48.9	51.6	44.3	45.0	44.7	40.8	30.6
September	58.0	85.7	46.9	22.5	49.8	51.8	43.3	44.7	44.0	42.1	29.5
October	57.3	83.8	45.2	22.1	49.4	50.6	41.9	42.0	42.0	31.4	25.6
November	58.1	83.5	46.4	22.1	52.8	53.5	45.1	44.6	44.8	38.5	28.0
December	54.9	83.7	50.1	22.9	57.8	56.5	49.9	48.0	49.0	41.7	29.8
1988 Average	57.7	85.0	49.5	24.0	54.9	54.9	47.3	47.3	47.3	42.5	30.0
1987 Average	58.9	85.9	53.8	25.2	59.2	59.9	52.7	53.4	53.1	46.2	38.5
1986 Average	53.1	91.2	49.5	29.0	60.6	57.9	48.6	45.2	47.0	40.9	30.5
1985 Average	83.5	113.0	79.4	39.8	87.4	86.3	77.6	77.2	77.4	67.2	57.7
1984 Average	83.2	116.5	83.0	45.0	91.6	89.2	82.1	80.3	81.3	70.7	65.4
1982 Average	97.3	122.8	95.3	42.7	101.8	103.8	91.4	91.4	91.4	73.7	61.2
1980 Average	94.1	112.8	86.8	41.5	86.4	88.0	80.3	80.1	80.2	67.0	52.8

(a) Includes No. 4 fuel oil and No. 4 diesel fuel.

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1989, published March 1990. (Table 4).

Supplier Product Prices for End-Users

(¢ per gal., excluding taxes)

Year Month	Motor Gasoline	Aviation Gasoline	Kerosine- Type Jet Fuel	Propane (Consumer Grade)	Kerosine	No. 1 Distillate	No. 2 Distillate		Average	No. 4 Fuel ^(a)	Residual Fuel Oil
							No. 2 Fuel Oil	No. 2 Diesel Fuel			
1989											
January	65.8	89.1	56.2	66.2	71.4	60.5	58.3	53.5	54.2	49.0	36.3
February	66.2	89.7	57.0	64.1	72.2	59.2	55.9	54.3	54.6	48.3	34.9
March	68.6	90.5	57.9	61.8	67.6	62.0	57.7	56.9	57.1	49.2	36.8
April	81.9	99.0	60.6	55.3	66.2	67.6	59.4	60.6	60.5	53.0	41.2
May	85.8	106.9	58.1	52.7	59.7	63.8	54.5	56.9	56.6	50.3	41.3
June	84.7	107.1	56.1	56.6	53.9	61.0	50.2	53.2	52.8	46.4	39.6
July	82.4	105.4	54.7	60.6	55.3	58.5	51.9	53.1	53.0	46.1	38.9
August	76.9	102.0	55.1	59.8	58.0	58.7	51.9	53.7	53.4	46.2	37.1
September	75.2	100.7	58.9	60.1	66.8	67.1	57.2	59.5	59.2	50.0	37.1
October	75.0	100.4	63.8	59.9	73.6	70.4	61.6	63.6	63.3	53.6	39.5
November	72.9	98.6	64.4	58.4	77.7	71.8	62.6	64.3	64.0	53.7	39.9
December	72.4	97.3	68.2	74.3	89.7	79.2	76.2	71.2	72.2	64.3	46.4
1989 Average	75.8	99.5	59.2	61.9	71.0	66.2	59.1	58.4	58.5	51.2	39.1
1988											
January	64.9	88.4	56.4	72.6	84.1	58.8	63.0	54.2	56.1	50.5	36.7
February	63.3	88.2	55.0	75.5	84.6	55.5	60.1	51.9	53.5	51.3	35.6
March	62.5	87.7	53.9	73.6	77.5	56.6	57.6	51.3	52.3	46.6	32.9
April	66.0	87.6	52.3	68.9	82.2	60.0	58.5	53.8	54.4	48.5	32.4
May	68.4	89.2	53.1	65.2	61.2	58.8	55.5	53.6	53.9	46.6	33.9
June	68.1	87.2	52.7	70.0	55.4	56.0	49.3	50.8	50.6	43.5	33.6
July	69.9	89.7	50.3	70.7	56.0	52.3	46.3	47.2	47.1	42.5	32.3
August	71.8	92.2	49.1	68.9	56.3	53.2	47.7	47.3	47.3	41.9	33.2
September	70.0	90.8	48.4	69.9	66.1	54.6	48.3	47.3	47.4	42.9	32.1
October	68.0	88.7	46.3	69.4	71.8	53.5	48.0	45.4	45.8	41.6	30.5
November	67.6	89.2	47.6	71.5	71.1	54.7	51.5	47.4	48.1	43.3	32.3
December	66.1	89.2	51.0	73.5	74.1	57.0	58.1	50.5	52.0	46.3	34.3
1988 Average	67.3	89.1	51.3	71.4	73.8	56.4	54.4	50.0	50.7	46.1	33.4
1987 Average	66.9	90.7	54.3	70.1	77.0	60.4	58.1	55.1	55.6	51.3	42.3
1986 Average	62.4	101.1	52.9	74.5	79.0	62.0	56.0	47.8	49.1	48.9	34.3
1985 Average	91.2	120.1	79.6	71.7	103.0	88.0	84.9	78.9	79.9	77.3	61.0
1984 Average	90.7	123.4	84.2	73.7	103.6	92.7	91.6	82.3	83.7	79.6	69.7
1982 Average	106.0	131.2	96.3	59.2	108.9	102.3	90.5	94.2	92.5	75.0	67.6
1980 Average	103.5	108.4	86.8	48.2	90.2	83.4	78.8	81.8	80.4	68.2	60.7

(a) Includes No. 4 fuel oil and No. 4 diesel fuel.

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1989, published March 1990. (Table 2).

Supplier Prices of No. 2 Distillate Fuel Oil

(¢ per gal., excluding taxes)

Sales to End-Users

	To Residential Consumers	To Commercial/Institutional Consumers	To Industrial Consumers	Sales Through Company Outlets	To Other End-Users	Average	Sales for Resale
1989							
January	85.0	57.1	58.6	63.6	59.8	68.1	53.2
February	85.5	57.0	59.3	64.4	61.5	68.7	52.4
March	87.1	59.5	62.2	66.1	65.2	69.5	55.6
April	87.8	61.9	64.3	70.7	69.0	69.6	57.8
May	86.7	57.9	60.2	69.1	66.4	65.3	53.8
June	84.2	54.5	56.7	66.3	62.5	60.9	51.1
July	82.1	54.7	56.4	65.1	62.0	60.4	51.2
August	81.6	55.6	58.1	64.3	63.2	61.2	52.6
September	81.4	60.5	64.0	68.7	68.4	66.4	57.8
October	85.6	64.4	67.8	71.3	71.9	70.7	61.3
November	86.3	65.2	68.0	72.4	71.7	72.9	61.5
December	107.8	76.6	77.6	81.4	79.4	88.9	72.2
1989 Average ..	90.0	60.8	63.3	68.5	66.9	69.5	57.2
1988							
January	84.7	57.4	58.3	65.2	60.1	69.3	52.0
February	83.9	54.4	56.5	63.5	59.4	66.6	49.8
March	83.1	53.4	55.6	62.6	61.2	64.0	49.1
April	83.1	55.6	58.1	63.8	63.2	63.9	51.8
May	81.9	54.7	57.2	64.1	62.1	61.6	51.4
June	79.1	51.2	54.4	62.4	59.4	57.7	48.1
July	76.7	47.9	51.2	60.9	56.6	54.8	44.6
August	73.7	48.3	51.1	60.1	56.2	54.7	45.4
September	75.9	48.4	51.2	59.2	56.9	55.8	44.8
October	75.5	47.3	50.4	58.4	56.2	56.4	42.8
November	77.2	49.9	52.5	59.0	55.6	59.2	45.6
December	81.4	54.0	55.4	61.4	57.1	64.9	50.1
1988 Average ..	81.3	51.9	54.2	61.6	58.7	61.2	48.2
1987 Average ..	80.3	56.6	59.7	64.4	63.1	64.3	53.5
1986 Average ..	83.6	51.4	53.7	59.8	56.9	61.4	48.0
1985 Average ..	105.3	82.1	83.4	86.6	85.3	89.0	78.1

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1989 published March 1990. (Table 15).

Supplier Prices of Residual Fuel Oil

(¢ per gal., excluding taxes)

	Residual Fuel Oil Sulfur Content Less Than or Equal to 1%		Residual Fuel Oil Sulfur Content Greater Than 1%		Average	
	Sales to End-Users	Sales for Resale	Sales to End-Users	Sales for Resale	Sales to End-Users	Sales for Resale
1989						
January	41.7	37.8	31.3	29.2	36.3	32.6
February	39.8	36.5	30.2	28.9	34.9	32.3
March	41.8	38.0	30.1	27.5	36.8	32.2
April	46.6	43.9	35.5	33.2	41.2	38.2
May	46.5	42.9	37.0	34.5	41.3	37.7
June	42.8	38.1	36.6	34.0	39.6	35.3
July	42.1	38.4	35.7	33.5	38.9	35.7
August	39.4	36.7	34.8	32.9	37.1	34.6
September	40.2	37.9	34.7	31.8	37.1	35.1
October	43.2	39.6	36.5	33.8	39.5	36.7
November	44.1	40.3	36.7	33.7	39.9	36.7
December	53.4	46.9	39.9	37.7	46.4	42.3
1989 Average ..	43.6	40.0	34.9	32.5	39.1	35.8
1988						
January	41.9	36.5	31.8	27.7	36.7	32.4
February	40.2	35.2	31.4	27.4	35.6	32.2
March	36.9	32.4	29.0	25.0	32.9	28.6
April	35.8	33.5	30.2	27.5	32.4	30.2
May	36.8	34.0	32.2	29.8	33.9	31.5
June	35.3	32.9	32.3	29.0	33.6	31.0
July	35.7	31.8	30.0	27.7	32.3	29.5
August	36.0	32.7	30.7	28.4	33.2	30.6
September	34.7	31.4	30.1	28.4	32.1	29.5
October	34.4	29.2	26.7	23.5	30.5	25.6
November	36.1	31.9	27.2	24.5	32.3	28.0
December	38.8	35.6	28.6	27.0	34.3	29.8
1988 Average ..	37.2	33.3	30.0	27.1	33.4	30.0
1987 Average ..	44.7	41.2	39.6	36.2	42.3	38.5
1986 Average ..	37.2	32.8	31.7	28.9	34.3	30.5
1985 Average ..	64.4	61.0	58.2	56.0	61.0	57.7
1984 Average ..	72.0	68.5	65.9	63.9	68.7	65.4
1982 Average ..	74.7	69.5	61.1	57.2	67.6	61.2
1980 Average ..	67.5	60.8	52.3	47.9	60.7	52.8

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1989, published March 1990. (Table 17).

Residential No. 2 Prices for Selected States

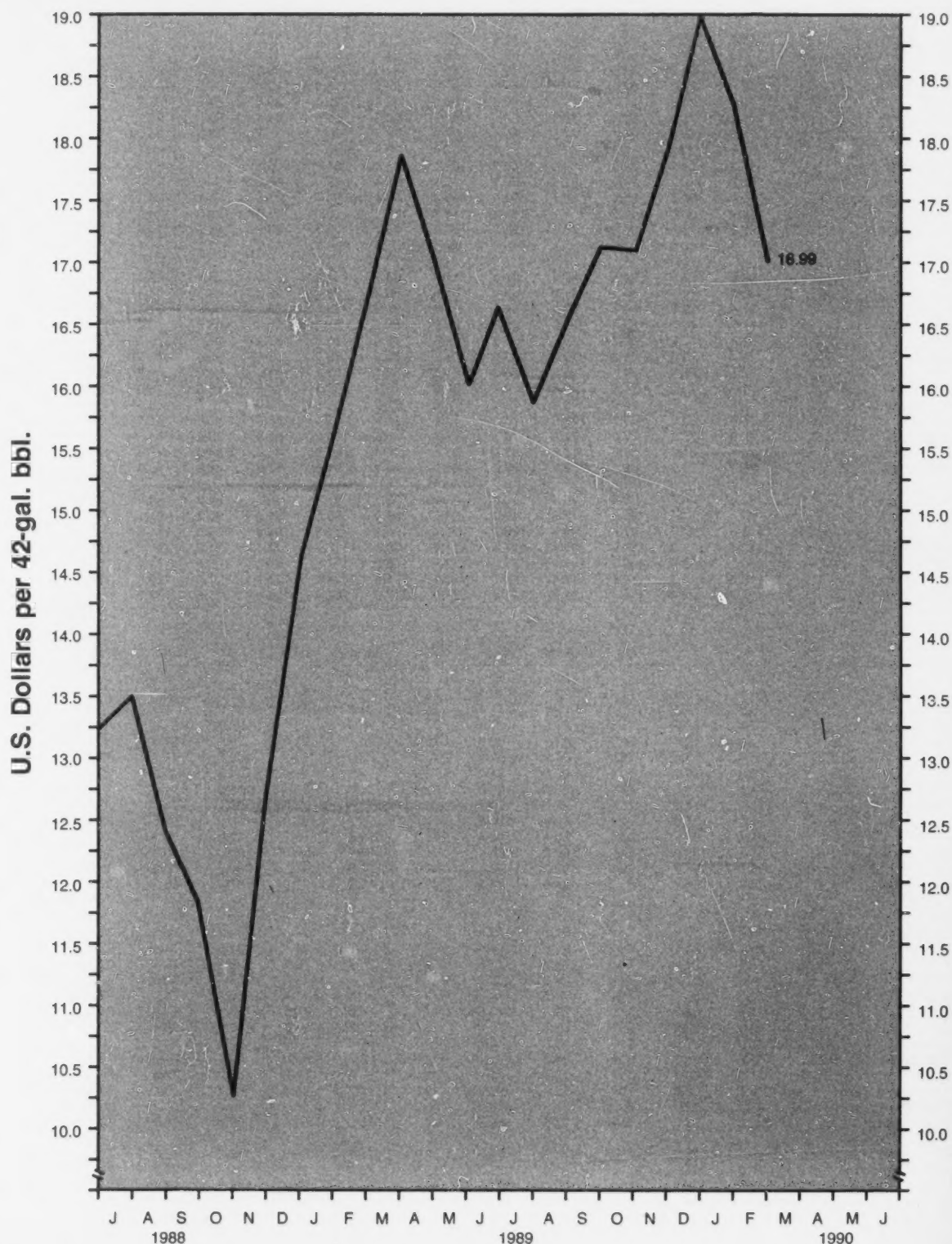
(¢ per gal., excluding taxes)

	Conn.	Maine	Mass.	N.H.	R.I.	Vt.	Del.	D.C.	Md.	N.J.	N.Y.	Pa.	Va.
1989													
January	88.5	85.5	87.1	83.0	87.4	86.0	84.4	94.0	88.0	87.3	90.9	81.6	82.9
February	88.8	87.3	86.3	83.8	88.3	86.9	84.1	95.1	88.7	87.0	92.1	82.2	82.3
March	89.9	88.2	88.1	84.8	90.0	88.2	82.9	96.0	89.3	88.9	93.2	83.2	82.4
April	89.4	87.2	87.8	83.2	89.9	87.8	84.8	95.0	90.6	87.8	93.7	83.2	82.1
May	88.1	81.0	86.8	83.1	88.8	86.9	83.4	92.1	89.6	87.2	92.7	82.2	81.4
June	85.7	73.5	83.4	79.4	87.6	84.3	80.3	92.0	88.4	83.0	91.7	77.6	79.4
July	85.0	71.9	81.1	77.8	85.4	82.9	78.9	90.7	85.7	82.3	90.5	74.1	78.7
August	84.6	70.0	81.1	78.2	84.1	82.0	78.8	90.1	85.3	80.1	90.1	72.6	78.1
September	85.2	74.6	84.9	79.2	86.5	82.5	78.8	91.4	83.4	81.8	86.5	74.2	79.9
October	88.9	82.7	88.5	82.9	90.3	85.1	82.4	92.0	88.5	87.3	91.0	78.9	83.8
November	89.9	86.7	91.1	86.7	92.4	86.3	86.1	94.7	91.5	89.7	93.7	81.6	86.1
December	111.9	106.6	116.2	111.7	115.2	111.7	112.1	110.5	111.4	108.3	114.0	103.4	105.4
1989 Average	92.8	89.5	92.9	89.3	94.2	90.5	88.2	96.7	93.6	91.8	95.8	85.1	86.8
1988													
January	88.9	80.3	85.6	82.5	87.1	85.9	83.9	95.8	90.9	88.1	89.1	82.9	82.7
February	89.0	79.7	84.1	81.6	86.4	85.9	83.2	96.0	90.3	87.7	88.4	82.0	83.4
March	87.4	79.2	83.3	80.3	84.7	85.0	81.5	93.1	88.2	86.8	87.3	81.1	83.8
April	88.1	78.7	83.2	79.0	85.4	85.0	82.5	91.8	89.1	85.8	86.7	80.5	83.0
May	87.6	77.6	82.3	78.3	85.1	84.4	82.5	93.9	87.9	85.4	84.9	79.1	81.7
June	86.4	75.4	78.3	79.3	81.4	83.8	80.9	89.7	86.8	82.5	83.5	74.6	79.1
July	83.5	73.3	77.1	76.6	76.3	81.3	73.4	87.6	85.0	80.9	81.7	71.1	77.3
August	81.9	75.7	74.2	73.8	79.7	80.3	73.9	85.9	84.2	78.6	78.0	63.9	77.0
September	80.8	71.7	80.0	73.3	78.4	78.5	72.6	85.8	76.0	76.3	83.0	68.6	75.8
October	79.9	69.0	77.7	71.5	75.5	77.0	71.8	84.1	78.3	77.8	81.7	69.5	74.8
November	80.5	72.0	77.9	72.3	79.7	77.8	74.8	85.6	81.3	78.8	83.3	70.9	77.1
December	84.4	80.2	82.8	77.3	83.4	81.6	79.6	89.8	85.0	84.0	87.8	76.5	79.6
1988 Average	85.3	77.7	82.1	78.2	83.6	82.6	80.1	91.6	87.0	84.8	86.3	77.8	80.5
1987 Average	83.4	74.7	80.6	76.5	82.5	81.1	79.3	91.8	86.6	84.3	85.2	76.9	79.5
1986 Average	89.0	74.4	82.1	75.9	82.8	86.6	85.0	93.1	91.4	90.2	91.1	81.4	86.6
1985 Average	108.0	99.7	107.0	102.4	106.7	107.7	104.6	114.3	108.8	105.9	111.3	102.3	106.3
1984 Average	112.1	103.9	111.6	108.4	111.4	111.9	109.6	118.7	113.5	111.0	115.5	107.9	110.5
1983 Average	109.1	102.8	109.1	104.1	110.5	112.9	106.0	117.0	110.3	107.9	112.1	105.8	108.7
1982 Average	118.3	115.5	117.6	117.4	120.1	120.1	111.3	124.5	117.1	117.4	120.5	113.7	117.7
1981 Average	121.7	120.4	121.3	123.7	123.8	125.4	117.3	127.4	121.4	121.5	123.2	118.1	120.5
1989													
January	76.1	76.6	77.9	79.1	75.4	78.0	73.9	68.0	87.0	66.7	76.5	85.0	
February	76.0	75.8	77.2	79.4	75.7	76.7	74.0	71.4	91.2	76.8	86.0	85.5	
March	77.1	76.5	77.9	81.6	77.0	77.5	75.6	78.2	96.0	84.3	92.9	87.1	
April	77.0	79.8	80.2	83.1	82.3	79.4	76.3	85.8	99.5	87.4	94.1	87.8	
May	77.4	78.5	78.1	83.0	82.1	78.5	78.0	83.5	100.0	79.7	87.2	86.7	
June	80.9	77.0	76.4	80.1	81.1	79.3	78.0	79.1	101.5	75.0	78.0	84.2	
July	78.1	74.5	76.1	80.3	80.8	79.4	75.7	77.3	105.8	71.2	74.6	82.1	
August	73.6	78.3	75.8	79.1	79.4	78.1	75.5	77.0	108.1	71.2	78.1	81.6	
September	79.3	77.4	80.1	82.9	80.8	77.5	76.5	80.3	96.3	81.5	83.9	81.4	
October	81.7	81.9	83.3	86.4	82.4	78.4	79.5	82.7	103.9	86.5	91.7	85.6	
November	83.1	82.9	84.0	88.2	86.4	78.8	82.7	84.8	98.0	86.4	93.4	88.3	
December	98.4	94.0	99.8	102.3	96.1	91.3	97.6	84.3	98.2	86.0	93.1	107.8	
1989 Average	82.7	80.8	83.3	85.6	82.5	80.9	80.9	77.6	97.4	80.3	87.3	90.0	
1988													
January	78.7	85.4	78.3	81.2	75.5	77.2	76.9	74.4	88.3	76.0	83.2	84.7	
February	76.1	86.1	76.7	80.9	74.4	77.1	76.0	71.7	85.6	74.9	82.1	83.9	
March	75.6	86.1	77.4	78.2	72.6	76.1	75.8	70.6	88.7	73.5	81.3	83.1	
April	74.6	87.4	79.0	78.8	73.1	77.1	77.7	73.3	86.6	75.0	82.1	83.1	
May	73.6	86.7	76.6	77.5	74.3	74.5	76.8	71.9	88.9	74.6	82.3	81.9	
June	71.8	82.9	80.1	73.7	72.5	71.9	74.6	70.5	88.1	73.9	78.0	79.1	
July	70.3	83.8	74.0	73.3	75.7	70.0	72.7	67.7	85.5	66.4	73.5	76.7	
August	67.9	80.3	74.1	73.9	72.2	69.2	71.2	64.3	85.7	64.3	70.1	73.7	
September	69.3	86.6	69.5	74.2	72.4	72.0	68.8	67.4	89.7	64.8	73.9	75.9	
October	71.3	69.4	71.2	75.4	71.1	71.2	68.0	66.8	86.2	62.4	71.0	75.5	
November	74.1	70.6	72.1	75.6	72.7	73.0	69.9	66.6	85.3	63.4	73.4	77.2	
December	73.9	73.1	75.3	77.0	73.0	75.2	71.6	66.9	85.6	64.2	75.7	81.4	
1988 Average	74.2	77.6	75.4	77.5	73.5	74.7	73.9	68.8	86.9	70.9	78.5	81.3	
1987 Average	76.4	79.8	75.4	77.5	74.6	74.7	75.1	68.8	86.5	72.5	79.5	80.3	
1986 Average	74.6	NA	74.8	81.0	79.2	77.7	75.6	73.8	94.9	70.4	77.5	83.6	
1985 Average	98.0	97.5	99.1	102.1	101.9	99.7	98.3	97.2	108.3	97.1	101.1	105.3	
1984 Average	102.1	100.1	103.1	105.0	104.1	102.1	101.0	98.5	106.9	99.3	102.6	109.1	
1983 Average	101.0	100.4	100.7	106.4	103.1	101.3	101.2	101.8	108.8	103.6	109.0	117.8	
1982 Average	109.3	110.9	114.3	113.9	115.1	110.2	107.8	110.4	117.4	111.6	117.8	116.0	
1981 Average	115.0	114.9	118.5	118.3	118.4	113.2	109.1	110.4	118.0	111.4	116.5	119.4	

Source: Energy Information Administration, Petroleum Marketing Monthly, December 1989, published March 1990. (Table 16).

World Crude Oil Price Trends

(Average price (FOB), internationally traded only, weighted by estimated volume)



Spot Market Product Prices

(\$ per bbl.)

		Motor Gasoline		Gasoil/Heating Oil		Residual Fuel Oil	
		Rotterdam Leaded Premium (98-Octane)	New York Unleaded Regular (87-Octane)	Rotterdam (0.3% Sulfur)	New York (0.2% Sulfur)	Rotterdam (1% Sulfur)	New York (1% Sulfur)
1990							
Jan.	5	27.90	28.29	32.91	40.53	23.05	25.75
	12	26.26	28.56	26.61	32.45	22.60	25.35
	19	25.56	26.36	23.99	27.03	20.50	24.75
	26	24.50	25.77	22.92	25.45	18.92	20.00
Feb.	2	25.91	26.04	22.79	24.30	18.99	18.65
	9	26.26	25.41	22.92	23.42	18.02	18.00
	16	26.14	25.10	24.53	24.72	17.12	17.75
	23	26.03	24.99	23.66	24.51	16.52	17.65
Mar.	2	25.79	22.72	23.46	23.31	16.37	17.00
	9	25.44	22.89	22.52	24.42	15.02	16.25
	16	24.85	23.52	22.39	24.78	13.51	16.25
1989							
Jan.	6	20.16	20.31	21.25	23.04	14.94	16.65
	13	19.93	21.11	21.98	23.04	14.79	16.35
	20	20.40	22.16	21.05	23.21	15.32	16.15
	27	20.40	21.21	20.17	21.78	15.17	15.50
Feb.	3	20.81	21.00	19.64	22.47	14.56	15.00
	10	21.51	20.10	18.97	21.25	14.56	14.50
	17	21.16	19.95	18.97	21.36	14.49	14.00
	24	21.45	20.48	19.17	21.74	14.04	14.75
Mar.	3	21.81	21.53	19.30	23.35	14.34	15.00
	10	23.15	21.36	19.77	23.46	14.34	16.10
	17	23.68	23.21	20.24	24.57	14.64	17.00
	24	25.73	23.73	21.11	24.72	15.02	18.00
	31	26.26	26.46	22.12	23.46	15.99	18.25
Apr.	7	30.89	26.76	21.18	22.68	16.52	18.50
	14	30.95	28.71	21.25	22.20	16.44	18.50
	21	33.24	30.77	22.18	22.47	17.42	18.75
	28	34.41	31.19	21.18	22.37	18.02	19.00
May	5	32.18	30.45	19.71	21.57	17.64	18.65
	12	31.13	28.88	19.71	21.67	16.44	18.00
	19	29.72	27.34	19.91	21.11	16.37	17.75
	26	28.72	28.14	19.91	21.42	15.47	17.50
June	2	28.14	27.87	19.77	21.11	15.62	17.50
	9	26.55	27.72	19.84	20.69	15.24	17.25
	16	24.38	25.66	18.36	19.47	14.49	16.75
	23	23.68	26.36	19.03	20.31	14.49	15.75
	30	25.21	26.25	19.57	20.62	14.64	16.50
July	7	24.62	24.72	20.04	20.83	14.64	16.65
	14	24.21	24.89	19.50	20.62	15.54	16.95
	21	23.56	22.68	20.58	21.55	15.54	16.65
	28	22.10	21.84	20.17	20.62	15.54	16.10
Aug.	4	22.27	21.67	20.11	20.27	13.74	16.15
	11	22.51	21.84	20.58	20.58	13.74	15.75
	18	23.15	22.09	21.25	20.94	13.81	15.65
	25	23.04	22.83	21.05	21.36	13.59	15.15
Sept.	1	23.15	23.14	21.31	22.37	13.51	14.90
	8	23.15	24.09	22.32	23.04	13.74	15.00
	15	23.33	24.40	22.52	22.79	14.19	15.75
	22	24.33	26.67	23.32	23.88	14.71	16.25
	29	25.62	25.73	22.99	24.51	14.71	16.50
Oct.	6	24.68	23.88	23.46	24.15	14.71	17.50
	13	24.85	23.94	24.80	25.41	14.71	17.65
	20	23.92	23.02	25.47	24.99	16.74	17.75
	27	22.74	22.79	24.06	23.84	16.82	17.50
Nov.	3	21.92	21.67	25.13	24.95	16.82	17.50
	10	21.86	21.63	24.80	24.51	16.52	17.75
	17	22.04	21.25	25.07	24.51	16.67	17.85
	24	22.16	21.53	25.47	25.14	16.82	17.85
Dec.	1	22.16	20.90	26.41	26.19	17.87	18.00
	8	22.33	21.63	29.56	27.87	18.47	18.75
	15	22.39	21.15	28.49	29.51	18.92	20.90
	22	22.68	23.14	29.36	37.11	20.42	22.50
	29	23.86	25.41	30.56	44.67	22.37	25.00

Source: Energy Information Administration, Weekly Petroleum Status Reports.

International Prices for Gasoline and Fuel Oil

(U.S. \$ per gal. for gasoline, pump retails, all taxes included. U.S. \$ per gal. for distillate and kerosine but \$ per bbl. for residual oil; all taxes are included except for U.S. fuel oils.)

Country	1/1/89					1/1/88				
	Automotive Fuels		Residential			Automotive Fuels		Residential		
	Leaded	Diesel	Distillate	Kerosine	Industrial	Leaded	Diesel	Distillate	Kerosine	Industrial
	Premium					Premium				
	Gasoline	Fuel			Residual	Gasoline	Fuel			Residual
WESTERN HEMISPHERE										
Argentina	\$1.85	\$1.17	\$.39	\$.84	\$NA	\$1.24	\$.56	\$NA	\$.53	\$12.68
Bolivia	1.47	.97	NA	1.01	NA	1.18	.91	NA	.76	NA
Brazil	1.77	.97	.58	1.01	15.98	2.18	.94	NA	.95	16.67
Canada	1.65	1.47	1.01	1.54	16.56	1.52	1.43	.94	1.43	15.46
Chile	1.20	.94	.93	.81	17.57	NA	NA	NA	NA	NA
Colombia	.72	NA	NA	NA	NA	NA	NA	NA	NA	NA
Dominican Republic	.56	.40	.37	.43	NA	NA	NA	NA	NA	NA
Ecuador	1.80	1.30	1.30	.30	54.60	NA	NA	NA	NA	NA
El Salvador	2.08	1.05	NA	1.14	21.00	NA	NA	NA	NA	NA
Jamaica	1.65	1.20	NA	.66	18.75	5.52	1.64	NA	.66	15.93
Mexico	.95	.74	.74	.50	9.04	.99	.77	.23	.52	7.34
Panama	1.98	1.19	NA	1.10	21.21	1.98	1.19	NA	1.10	15.37
Paraguay	1.44	.72	NA	.87	19.08	3.50	1.80	NA	2.18	47.70
Peru	2.00	.39	NA	.21	12.09	1.02	.38	NA	.11	13.62
United States	.92	.89	.63	.76	15.25	.91	.96	.62	.84	15.92
Uruguay	2.27	1.30	1.02	1.20	27.18	2.58	1.49	1.16	1.37	27.54
Venezuela	.39	.09	NA	.13	2.19	.39	.09	NA	.13	2.19
WESTERN EUROPE										
Austria	3.02	2.09	1.23	NA	NA	2.86	2.12	1.27	NA	NA
Belgium	2.80	1.50	.75	NA	15.16	2.57	1.39	.74	.58	13.72
Denmark	3.90	1.10	2.37	NA	23.00	3.72	1.05	2.27	1.78	18.97
Finland	3.16	1.86	.79	NA	18.54	3.11	1.89	.89	NA	22.43
France	3.11	1.86	1.22	NA	17.15	3.08	1.93	1.20	NA	15.28
Germany, West	2.53	1.71	.82	.75	17.02	2.18	1.75	.71	NA	16.10
Greece	2.15	1.05	1.05	1.77	28.34	2.15	1.05	1.05	NA	26.74
Ireland	3.54	2.47	1.28	NA	21.68	3.39	2.42	1.23	NA	22.92
Italy	3.91	1.82	1.99	1.67	15.15	4.09	1.77	1.86	NA	12.99
Luxembourg	2.24	1.29	.83	1.01	16.52	2.04	1.28	.75	NA	16.73
Netherlands	3.02	1.38	1.13	1.53	22.94	3.01	1.36	1.09	NA	19.91
Norway	3.27	1.06	1.09	1.13	31.03	2.89	1.14	1.05	1.12	NA
Portugal	3.25	1.94	2.02	1.74	24.67	3.25	1.95	2.02	1.89	24.07
Spain	2.45	1.62	1.06	1.80	17.57	2.58	1.71	1.12	1.70	18.74
Sweden	2.92	1.84	1.48	NA	44.39	2.68	1.64	1.11	NA	36.68
Switzerland	2.72	2.67	.77	NA	19.74	2.53	2.61	.68	NA	18.02
Turkey	1.63	1.18	.54	1.21	22.21	1.36	1.01	.72	1.04	26.46
United Kingdom	2.59	2.06	71.00	NA	16.98	2.43	1.95	.78	NA	17.48
Yugoslavia	1.25	1.03	.53	.58	12.95	2.04	1.66	NA	.76	18.81
MIDDLE EAST										
Israel	1.89	1.36	1.21	1.44	13.98	NA	NA	NA	NA	NA
Lebanon	.60	.52	.52	.50	22.99	NA	NA	NA	NA	NA
Saudi Arabia	.54	.12	NA	.20	42.40	.54	.12	NA	.21	47.67
AFRICA										
Ethiopia	2.18	1.44	NA	1.20	41.48	2.35	1.44	1.31	1.19	41.47
Ghana	1.22	1.17	NA	.89	18.33	1.11	1.06	NA	.80	22.95
Morocco	2.79	1.59	.91	1.43	32.66	2.94	1.68	NA	1.51	34.44
South Africa	1.66	1.53	NA	1.89	52.99	NA	NA	NA	NA	NA
Tunisia	1.65	NA	.82	.54	16.23	2.22	NA	.85	.71	16.96

International Prices for Gasoline and Fuel Oil

(Continued.....)

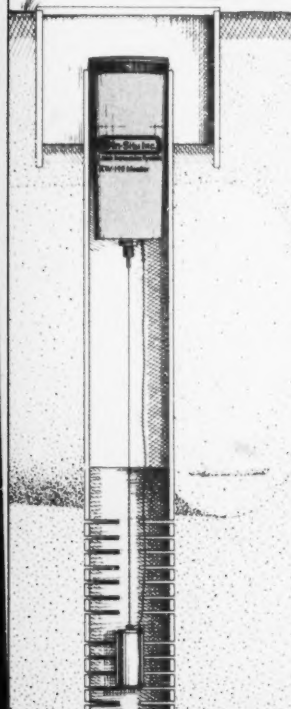
(U.S. \$ per gal. for gasoline, pump retails, all taxes included. U.S. \$ per gal. for distillate and kerosine but \$ per bbl. for residual oil; all taxes are included except for U.S. fuel oils.)

Country	1/1/89					1/1/88				
	Automotive Fuels		Residential			Automotive Fuels		Residential		
	Leaded					Leaded				
	Premium Gasoline	Diesel Fuel	Distillate	Kerosine	Industrial Residual	Premium Gasoline	Diesel Fuel	Distillate	Kerosine	Industrial Residual
ASIA-PACIFIC										
Australia	1.63	1.48	NA	1.30	NA	1.51	1.31	NA	NA	NA
Burma	2.97	2.04	NA	2.04	NA	NA	NA	NA	NA	NA
Indonesia	.84	.44	.44	.36	18.48	1.00	.45	.51	.37	NA
India	2.14	.88	NA	.56	28.92	2.15	1.01	NA	.65	33.21
Japan	3.41	2.02	1.04	1.36	27.76	3.49	2.08	1.12	1.13	30.57
New Zealand	2.31	1.78	1.74	NA	38.06	2.31	1.69	1.75	NA	38.06
Pakistan	1.76	.79	NA	.61	10.81	1.67	.83	NA	.65	11.42
Philippines	1.03	.66	NA	.66	17.31	1.39	.97	.52	.98	NA
Singapore	1.76	.75	NA	.61	10.07	1.75	.78	NA	.64	10.40
Sri Lanka	1.55	.93	NA	.76	37.70	1.66	1.00	NA	.81	19.19
Thailand	1.27	.92	NA	.75	18.38	1.34	.95	.47	.92	18.53

*Unleaded regular grade gasoline in Canada and U.S., unleaded premium in all other countries; ** Excludes taxes, all other countries include taxes in distillate, kerosine and residual prices; NA = Not available or not reported.

Source: International Energy Annual 1988, Energy Information Administration; gasoline and fuel oil prices are for the capital cities of each country except those of the U.S., which are the national average for the periods quoted.

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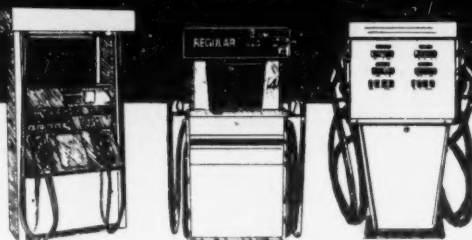
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U.S. Census: Service Stations with Payrolls 1987 vs. 1982(a)

Historically, the U.S. Census Bureau has used year-end totals as its official count for service station establishments. The 1987 Census introduced a new approach, the number of stations in existence at any given time—in other words, a peak (or

variable) count. For example, note that the year-end total of gasoline establishments shown below is only 105,561 while the variable (floating) total is 114,748. The Census Bureau says the year-end count will be dropped in future censuses.

	Dollar Sales														
	Establishments (b)				Per Establishment				Annual Payroll (\$)				No. of Employees		
	Variable		Year-End		(Add 000)		%		(Add 000)		%		1987		1982
	1987	1982	1987	1982	1987	1982	Chng.		1987	1982	Chng.		1987	1982	Chng.
Alabama	2,229	2,205	2,048	2,003	1,452,893	1,173,199	23.8		651,814	531,842	22.6		10,256	7,629	34.4
Alaska	214	188	184	176	179,436	205,846	(12.8)		838,486	1,094,926	(23.4)		1,197	1,219	(2.0)
Arizona	1,241	1,320	1,151	1,204	1,584,575	1,308,398	21.3		1,276,853	989,695	29.0		10,430	7,544	38.3
Arkansas	1,357	1,381	1,320	1,216	942,262	759,692	24.0		694,371	550,103	26.2		7,626	5,313	43.5
California	9,812	11,426	9,127	10,625	10,742,275	10,531,345	2.0		1,094,810	921,700	18.8		71,074	64,727	9.8
Colorado	1,568	1,787	1,455	1,570	1,533,021	1,429,634	7.2		976,416	800,019	22.0		10,745	9,404	7.9
Connecticut	1,671	1,884	1,531	1,728	1,656,222	1,447,769	14.4		991,156	768,458	29.0		10,898	9,969	9.3
Delaware	279	336	250	302	284,901	267,883	6.4		1,021,151	797,271	28.1		1,897	1,583	19.8
District of Columbia	115	174	96	158	129,050	180,038	(28.3)		1,122,174	1,034,701	8.5		917	1,137	(19.3)
Florida	5,933	5,922	5,329	5,504	5,528,589	4,775,575	15.8		931,832	796,992	16.9		37,187	29,382	26.7
Georgia	3,273	3,371	3,020	3,075	2,987,099	2,381,548	25.4		912,649	886,117	3.0		21,288	14,759	44.2
Hawaii	355	389	341	366	472,232	400,101	6.8		1,330,231	1,028,537	29.3		3,974	3,684	7.9
Idaho	558	552	512	494	443,886	352,934	25.8		795,498	639,373	24.4		3,202	2,408	33.0
Illinois	4,655	5,624	4,294	5,139	4,624,773	4,590,808	0.7		993,506	816,291	21.7		28,987	28,277	2.5
Indiana	2,854	3,476	2,634	3,167	2,640,217	2,725,444	(3.1)		925,094	784,362	17.9		17,493	16,279	7.4
Iowa	2,020	2,223	1,906	2,064	1,420,696	1,377,854	3.1		703,315	619,817	13.5		11,100	9,581	15.9
Kansas	1,576	1,650	1,320	1,547	1,140,894	1,068,672	6.8		723,918	647,680	11.8		8,238	7,127	15.6
Kentucky	2,058	2,353	1,892	2,121	1,547,016	1,552,609	(0.4)		752,806	669,842	12.4		11,559	9,682	19.4
Louisiana	1,934	2,148	1,720	1,976	1,552,367	1,537,673	1.0		802,672	715,863	12.1		10,937	10,436	4.8
Maine	673	695	613	642	551,516	388,839	42.6		819,489	559,481	46.5		3,961	2,909	36.2
Maryland	1,846	2,022	1,697	1,877	2,133,699	1,999,672	6.7		1,155,850	988,957	16.9		16,045	13,801	16.3
Massachusetts	2,738	3,902	2,541	2,963	2,516,762	2,318,660	8.5		919,197	594,223	54.7		18,077	16,662	8.5
Michigan	4,164	4,512	3,878	4,128	4,261,908	3,980,960	6.8		1,023,513	882,305	16.0		26,788	21,953	22.0
Minnesota	2,289	2,391	2,154	2,230	2,240,300	2,053,472	9.1		978,724	897,104	9.1		16,498	13,321	23.8
Mississippi	1,374	1,343	1,256	1,192	7,781,081	687,591	13.6		858,834	511,981	67.7		6,055	4,893	27.7
Missouri	3,119	3,185	2,884	3,944	2,731,085	2,228,484	22.6		869,857	699,681	24.3		19,103	14,608	30.8
Montana	548	569	493	522	403,140	387,615	4.0		735,657	681,221	8.0		2,985	2,864	4.2
Nebraska	1,163	1,200	1,077	1,129	786,392	743,238	5.8		676,175	619,635	9.1		6,043	5,158	17.2
Nevada	441	519	387	476	522,788	564,273	(7.4)		1,185,460	1,087,231	9.0		4,462	3,592	24.2
New Hampshire	534	595	499	548	491,116	397,902	23.4		919,693	668,743	37.5		3,335	2,695	23.7
New Jersey	3,791	4,530	3,433	4,159	3,140,306	3,157,557	(0.5)		828,358	697,032	18.8		22,607	20,014	13.0
New Mexico	696	854	644	770	639,911	613,590	4.3		919,412	718,489	28.0		4,510	4,159	8.4
New York	5,982	6,942	5,443	6,335	4,916,033	4,414,785	11.4		821,804	635,953	29.2		30,105	28,069	7.3
North Carolina	3,547	3,326	3,281	3,050	2,717,964	1,899,350	43.1		766,271	571,061	34.2		18,164	11,952	56.7
North Dakota	471	450	441	421	322,071	360,837	3.1		683,802	801,860	(14.7)		2,658	2,635	0.9
Ohio	5,362	6,450	4,990	5,907	4,925,010	5,309,070	(7.2)		918,502	823,112	11.6		33,703	30,740	9.6
Oklahoma	1,706	1,735	1,565	1,589	1,167,344	1,110,445	5.1		684,258	640,026	6.9		8,323	7,751	7.4
Oregon	1,352	1,655	1,201	1,492	1,043,593	1,106,679	(5.7)		787,617	668,688	17.8		8,958	7,590	18.0
Pennsylvania	5,192	6,263	4,842	5,781	4,403,251	4,272,225	3.1		848,084	682,137	24.3		31,979	29,580	8.1
Rhode Island	487	568	588	488	429,080	368,332	16.5		881,668	648,471	35.9		2,524	2,376	6.2
South Carolina	1,833	1,808	1,670	1,667	1,495,268	1,200,530	24.6		815,749	703,445	16.0		10,551	7,627	38.3
South Dakota	556	578	522	533	385,703	356,755	8.1		693,710	617,223	12.4		2,979	2,343	27.1
Tennessee	2,491	2,783	2,278	2,490	2,206,641	1,597,688	12.7		885,845	703,445	25.9		15,532	11,607	33.8
Texas	8,568	9,012	7,790	8,234	7,140,503	6,600,038	8.2		833,392	732,361	13.8		52,795	42,171	6.2
Utah	849	890	780	842	710,176	657,296	8.0		836,485	735,534	13.7		5,450	4,392	24.1
Vermont	369	397	343	359	268,569	217,379	23.5		727,829	547,554	32.9		1,941	1,731	12.1
Virginia	2,740	2,939	2,523	2,652	2,795,680	2,394,061	16.8		1,020,321	814,584	25.4		18,837	15,461	21.8
Washington	2,003	2,351	1,835	2,144	1,734,565	1,689,794	2.6		865,984	718,755	20.1		12,177	10,419	16.9
West Virginia	1,013	1,169	922	1,062	691,216	709,365	(2.6)		682,345	606,814	12.4		5,017	4,617	8.7
Wisconsin	2,735	2,896	2,581	2,701	2,282,355	2,110,502	8.1		834,499	728,765	14.5		16,760	13,921	20.4
Wyoming	415	459	384	430	305,008	398,618	(23.5)		734,959	868,448	(15.4)		2,363	2,475	(4.5)
TOTAL U.S.	114,748	126,688	105,561	116,188	101,997,440	94,718,664	7.7		898,882	747,771	18.9		701,690	603,886	16.2

(a) The U.S. Census Bureau makes a study of retail trades every five years. The data in this table were extracted by National Petroleum News from the state-by-state reports published in the spring, summer and fall of 1989. These are "true" service stations, which generate more than half of their revenues from the sale of gasoline and petroleum products—thus they do not include facilities at convenience stores, car washes, etc.; these are stations with payrolls and are comparable to the 1982 census reports.

Service Stations With Payrolls—Populations And Sales By State

With the resumption of publication of the annual report, "Franchising in the U.S. Economy 1988-1990," NPN is once again able to project service station population details on a state-by-state basis. Dropped by the federal government, the franchising report has been taken over by private interests which plan to continue it indefinitely. The current study, released in January of this year, offers percentage changes on a national

basis for 1988, 1989 and 1990. These are extrapolated on a state-by-state basis, using the official 1987 census figures as the starting point. Since the Census Bureau counts only those stations that get 50% or more of their business dollars from gasoline and oil products, the totals are limited in perspective and do not include gasoline outlets at convenience stores, garages, repair centers, dealerships and independent operations.

	Total Gasoline Service Stations				Dollar Sales (add 000) Estimates			U.S. Census
	1990(a)	1989(a)	1988(a)	1987(b)	1990(a)	1989(a)	1988(a)	1987(b)
Alabama.....	1,173	1,176	1,198	2,229	\$1,640,171	\$1,547,331	\$1,452,893	\$1,452,893
Alaska.....	208	209	211	214	202,565	191,099	179,436	179,436
Arizona.....	1,206	1,210	1,222	1,241	1,788,827	1,687,572	1,584,575	1,584,575
Arkansas.....	1,321	1,325	1,338	1,357	1,064,510	1,004,255	942,962	942,962
California.....	9,549	9,578	9,675	9,812	12,126,954	11,440,523	10,742,275	10,742,275
Colorado.....	1,527	1,531	1,546	1,568	1,730,627	1,632,667	1,533,021	1,533,021
Connecticut.....	1,627	1,632	1,648	1,671	1,869,709	1,763,876	1,656,222	1,656,222
Delaware.....	271	272	275	279	321,625	303,420	284,901	284,901
D.C.....	112	112	113	115	145,685	137,438	129,050	129,050
Florida.....	5,775	5,792	5,850	5,933	6,241,224	5,887,947	5,528,589	5,528,589
Georgia.....	3,187	3,196	3,228	3,273	3,372,034	3,181,165	2,987,009	2,987,009
Hawaii.....	346	347	350	355	533,103	502,927	472,232	472,232
Idaho.....	543	545	550	558	501,105	472,741	443,888	443,888
Illinois.....	3,543	3,554	3,590	4,655	5,220,906	4,925,382	4,624,773	4,624,773
Indiana.....	2,778	2,786	2,814	2,854	2,980,541	2,811,831	2,640,217	2,640,217
Iowa.....	1,966	1,972	1,992	2,020	1,603,824	1,513,041	1,420,696	1,420,696
Kansas.....	1,534	1,539	1,554	1,576	1,287,955	1,215,052	1,140,894	1,140,894
Kentucky.....	2,003	2,009	2,029	2,058	1,746,426	1,647,572	1,547,016	1,547,016
Louisiana.....	1,882	1,888	1,907	1,934	1,752,467	1,653,271	1,552,367	1,552,367
Maine.....	655	657	664	673	622,606	587,365	551,516	551,516
Maryland.....	1,797	1,802	1,820	1,846	2,386,154	2,251,088	2,133,699	2,133,699
Massachusetts.....	1,695	2,703	2,730	2,738	2,841,173	2,680,352	2,516,762	2,516,762
Michigan.....	4,053	4,065	4,106	4,164	4,811,268	4,535,932	4,261,908	4,261,908
Minnesota.....	2,228	2,235	2,257	2,289	2,529,075	2,385,920	2,240,300	2,240,300
Mississippi.....	1,338	1,342	1,355	1,374	881,762	831,851	781,081	781,081
Missouri.....	3,035	3,044	3,075	3,119	3,083,122	2,908,666	2,731,085	2,731,085
Montana.....	533	535	540	548	455,105	420,344	403,140	403,140
Nebraska.....	1,133	1,136	1,147	1,163	887,758	837,567	786,392	786,392
Nevada.....	430	431	435	441	590,175	556,769	522,788	522,788
New Hampshire.....	521	522	527	534	554,421	523,039	491,116	491,116
New Jersey.....	3,890	3,701	3,738	3,791	3,545,091	3,344,426	3,140,306	3,140,306
New Mexico.....	677	679	686	696	722,396	681,505	639,911	639,911
New York.....	5,822	5,839	5,898	5,982	5,549,710	5,235,575	4,916,033	4,916,033
North Carolina.....	3,452	3,462	3,497	3,547	3,068,310	2,894,632	2,717,964	2,717,964
North Dakota.....	458	459	464	471	374,875	353,656	322,071	322,071
Ohio.....	5,218	5,234	5,287	5,362	5,446,954	5,138,636	4,825,010	4,825,010
Oklahoma.....	1,660	1,665	1,682	1,706	1,317,815	1,243,221	1,167,344	1,167,344
Oregon.....	1,317	1,321	1,334	1,352	1,178,112	1,111,427	1,043,593	1,043,593
Pennsylvania.....	5,053	5,068	5,119	5,192	4,970,083	4,689,462	4,403,251	4,403,251
Rhode Island.....	470	471	476	487	484,388	456,970	429,080	429,080
South Carolina.....	1,784	1,789	1,807	1,833	1,688,008	1,592,460	1,495,268	1,495,268
South Dakota.....	541	543	548	556	435,420	410,774	385,703	385,703
Tennessee.....	2,425	2,432	2,456	2,491	2,491,077	2,350,073	2,206,641	2,206,641
Texas.....	8,339	8,364	8,448	8,568	8,060,914	7,604,636	7,140,503	7,140,503
Utah.....	817	819	827	849	801,718	756,337	710,176	710,176
Vermont.....	359	360	364	369	303,187	286,026	268,569	268,569
Virginia.....	2,667	2,675	2,702	2,740	3,156,043	2,977,399	2,795,680	2,795,680
Washington.....	1,949	1,955	1,975	2,003	1,958,150	1,847,312	1,734,565	1,734,565
West Virginia.....	986	989	999	1,013	780,314	736,145	691,216	691,216
Wisconsin.....	2,662	2,670	2,697	2,735	3,366,781	3,176,208	2,982,355	2,982,355
Wyoming.....	404	405	409	415	344,414	324,919	305,088	305,088
Total U.S.....	111,657	112,011	113,142	114,748	\$115,144,910	\$108,627,273	\$101,997,440	\$101,997,440

(a) Projected by NPN on the basis of the 1987 Census of Retail Trade by the Dept. of Commerce and "Franchising in the Economy 1988-1990," formerly published by the Commerce Dept. but not under the jurisdiction of International Franchising Assn., Washington, D.C. It should be borne in mind that the Commerce Dept. counts only those stations with payrolls and skips all that do not get 50% or more of their business dollars from gasoline and oil products.

(b) U.S. Census Bureau, Retail Trade Census, 1987, published in 1989.

Gasoline Shares by Key Categories—1989

A study of U.S. retail gasoline market shares was undertaken in 1985 by MPSI Inc., a Tulsa, Okla. firm specializing in international computer software and information services as well as market research and planning. Shown below is MPSI's updated study covering the year 1989.

Included with the data on regional and national market shares for 1989 (see table below) are the comparable figures for 1988. This comparison offers indications of the trends within the various outlet groupings.

The study breaks out, on both a national and regional basis, market shares and percentage of outlets for conventional service stations, volume pumpers, convenience stores that sell gasoline, plus a catch-all category of "others" including car washes, garages and other facilities.

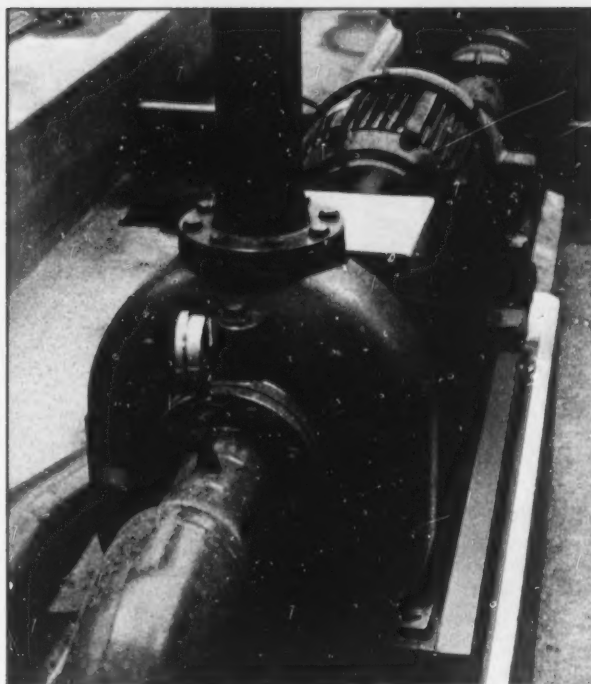
This study covers primarily the metropolitan areas of the U.S. where most gasoline is marketed. No attempt was made to count rural vendors or highway units which, while important to the industry, do not add significantly to overall consumption.

U.S. Regional and National Market Shares

	Service Stations		Pumpers		Convenience Food Stores		Others		Total	
	1989	1988	1989	1988	1989	1988	1989	1988	1989	1988
Northeastern Region										
• % of Outlets	61.0	64.9	21.7	19.7	6.2	5.0	11.1	10.4	100.0	100.0
• % of Volume	55.9	58.0	38.5	36.6	3.4	2.8	2.2	2.6	100.0	100.0
• Avg. Monthly Volume (Gallons)	64,132	58,378	123,818	120,998	38,591	36,762	14,252	16,048	69,996	65,252
Midwestern Region										
• % of Outlets	36.0	38.4	44.2	42.5	8.3	7.2	11.5	11.9	100.0	100.0
• % of Volume	27.9	31.3	62.5	61.6	6.8	4.1	2.8	3.0	100.0	100.0
• Avg. Monthly Volume (Gallons)	59,197	58,959	107,771	104,937	43,077	41,472	18,327	18,154	76,256	72,369
Sunbelt Region										
• % of Outlets	24.4	25.3	32.6	32.2	32.2	31.3	10.6	11.2	100.0	100.0
• % of Volume	23.5	24.3	57.1	56.5	16.0	15.5	3.4	3.7	100.0	100.0
• Avg. Monthly Volume (Gallons)	55,943	55,853	101,915	101,761	28,934	28,734	18,176	18,902	58,173	58,029
Western Region										
• % of Outlets	45.8	48.3	34.1	32.2	11.9	10.6	8.2	8.9	100.0	100.0
• % of Volume	45.2	46.3	47.5	46.4	5.3	4.9	2.0	2.4	100.0	100.0
• Avg. Monthly Volume (Gallons)	65,056	60,868	120,367	113,735	38,188	36,769	20,987	21,580	81,352	79,108
Total United States										
• % of Outlets	39.8	42.2	32.3	30.9	17.4	16.3	10.5	10.6	100.0	100.0
• % of Volume	37.7	39.9	51.2	50.0	8.5	7.7	2.6	3.0	100.0	100.0
• Avg. Monthly Volume (Gallons)	61,669	58,021	110,896	108,226	33,948	31,387	17,631	18,552	70,023	66,740

Source: MPSI Inc., Tulsa, Oklahoma.





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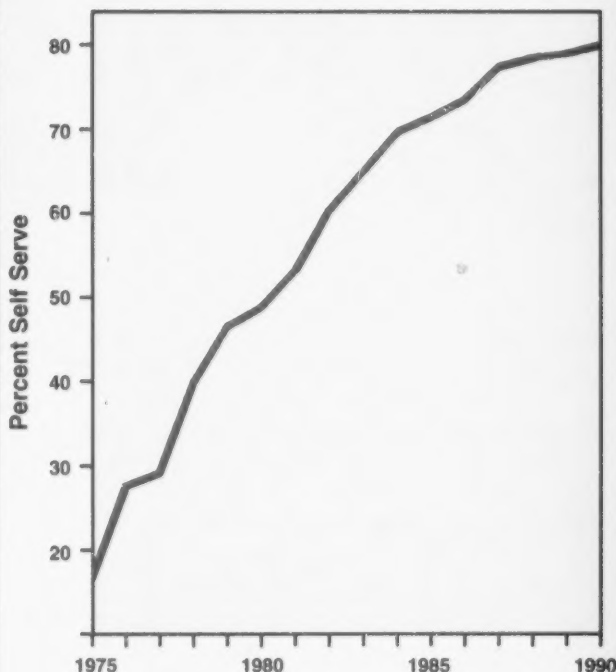
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Self Serve Increases

American motorists continue to choose self service over full service when purchasing gasoline. Since 1975, self service gasoline sales have consistently increased at record rates from 22% to 80% last year, according to Amoco Oil Co. marketing research.

The market share for self serve last year jumped one percentage point from the previous year and represents an increase of more than six percentage points since 1984.

U.S. Self-Serve Motorist Gasoline Market Share (%)



Self-Serve Motorist Gasoline Market Share by State (%) 1989 vs. 1988

State (a)	1989	1988	chg.	State (a)	1989	1988	chg.
Alabama	83	83	NC	Montana	91	91	NC
Arizona	94	93	+1	Nebraska	82	81	+1
Arkansas	85	83	+2	Nevada	94	93	+1
California	92	91	+1	New Hampshire	68	65	+3
Colorado	94	93	+1	New Mexico	92	92	NC
Connecticut	74	72	+2	New York	60	59	+1
Delaware	86	85	+1	North Carolina	89	88	+1
D.C.	87	83	+4	North Dakota	81	78	+3
Florida	92	91	+1	Ohio	87	86	+1
Georgia	89	88	+1	Oklahoma	86	86	NC
Idaho	90	89	+1	Pennsylvania	68	66	+2
Illinois	90	88	+2	Rhode Island	69	66	+3
Indiana	88	88	NC	South Carolina	90	89	+1
Iowa	85	85	NC	South Dakota	80	81	-1
Kansas	84	82	+2	Tennessee	85	85	NC
Kentucky	80	79	+1	Texas	92	92	NC
Louisiana	91	90	+1	Utah	95	94	+1
Maine	57	53	+4	Vermont	62	59	+3
Maryland	87	86	+1	Virginia	90	90	NC
Massachusetts	53	52	+1	Washington	92	91	+1
Michigan	89	87	+2	West Virginia	78	75	+3
Minnesota	84	83	+1	Wisconsin	90	89	+1
Mississippi	83	82	+1	Wyoming	85	86	-1
Missouri	85	83	+2	All States	81	80	+1

Note: Self-Serve is illegal in New Jersey and Oregon.
Source: Amoco Oil, Monthly Survey.

Business at Service Stations

Dollar Volume and Product Sales

Year	No. of service stations(a)	Total sales (add 000,000,000)	Avg. sales per station (add 000)	Passenger car population (add 000)	Gasoline	
					Avg. gal. consumed per car per year	Total consumption (add 000,000 gal.)
1989	111,700	\$115.0	\$1,030	144,375	500(b)	72,188
1988	112,000	91.9	821	142,209	507(b)	72,099
1987	115,870	89.2	770	140,693	515(b)	72,457(b)
1986	120,510	86.6	719	135,431	525(b)	71,101(b)
1985	124,600	100.8	809	131,864	525(b)	69,229(b)
1984	132,080	101.0	765	128,270	536(b)	68,914(b)
1983	136,570	103.1	755	126,727	553(b)	70,080(b)
1982	144,690	106.2	733	123,746	566(b)	70,040(b)
1981	151,250	101.7	672	123,462	576(b)	71,114(b)
1979	164,790	70.9	430	120,248	653(b)	78,522(b)
1977	176,465	56.5	320	113,696	716(b)	81,406(b)
1975	189,480	43.8	232	106,712	716(b)	76,406(b)
1972(c)	226,459	33.7	149	96,567	785(b)	75,805(b)

(a) Franchising in the Economy 1986-88, Dept. of Commerce; by definition of Census Bureau these are stations that get 50% or more of gross sales from petroleum products; (b) In September 1987, Federal Highway Administration revised its gallonage consumption data and re-calculated the averages back to 1970, thus these figures are not comparable with prior data in NPN Factbook; (c) Peak year for service stations.

Sources: Franchising in the Economy, 1988-1990; Federal Highway Administration and NPN.

Station Customers

Year	No. of service stations(a)	Privately owned passenger cars		Households owning cars		Licensed drivers		Women drivers	
		Total (add 000)	Avg. per station	Total (add 000,000)	Avg. per station	Total (add 000,000)	Avg. per station	Total (add 000,000)	Avg. per station
1989	111,700	144,375	1,293	78.5	703	164.9	1,476	79.7	706
1988	112,000	142,209	1,270	78.0	696	164.2	1,466	78.9	704
1987	115,870	139,041	1,200	77.0	665	161.8	1,396	77.8	671
1986	120,510	135,431	1,124	76.0	631	159.4	1,323	76.2	632
1985	124,600	132,108	1,060	75.0	602	156.9	1,259	75.3	604
1984	132,080	128,270	971	74.0	560	155.4	1,176	74.3	562
1983	136,570	126,727	927	73.0	534	154.2	1,129	73.4	537
1982	144,690	123,746	855	72.0	497	150.3	1,038	71.7	491
1981	151,250	123,462	816	70.0	460	147.0	969	69.2	457
1979	164,790	120,248	731	65.9	400	143.3	868	66.8	403
1977	176,465	113,696	644	63.3	365	138.4	784	63.7	361
1975	189,480	106,712	563	60.5	319	127.8	662	56.8	294
1972(b)	226,459	96,567	426	52.8	232	118.4	522	52.6	232

(a) Franchising in the Economy 1988-90, Dept. of Commerce; Bureau of Census definition of service stations: 50% or more of dollar volume comes from the sale of petroleum products; (b) Peak year.

Sources: Based on data from Motor Vehicle Mfgs. Assn., Federal Highway Administration and NPN.

How Stations Rank in Sales (Billions of Dollars)

	1989	% Change '89-'88	1988	% Change '88-'87	1987	% Change '87-'86	1986	% Change '86-'85
All Retail Stores	\$1,711.0	5.0%	\$1,629.1	7.8%	1,510.6	5.1%	1,437.5	4.2%
Automotive Group	376.4	2.0	369.0	12.9	326.9	2.1	320.3	2.7
Food Group	355.2	6.9	331.9	5.7	314.3	4.1	301.8	6.3
General Merchandise	193.7	5.4	183.8	4.5	175.9	6.5	165.1	10.4
Eating and Drinking Places	164.8	4.6	157.5	6.7	147.6	9.1	135.3	1.4
Gasoline Service Stations	109.5	7.5	101.9	(1.4)	103.2	6.1	97.3	(0.0)
Apparel Group	91.3	11.3	82.0	2.3	79.1	5.7	74.8	0.7

Source: Survey of Current Business, Dept. of Commerce, Vol. 70, No. 1, January 1990.

Personal Consumption Expenditures

	(Billions of Dollars)						Seasonally Adjusted at Annual Rate—1988			
	1989	% Change '89-'88	1988	% Change '88-'87	1987	% Change '87-'86	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Total Expenditures	\$3,470.3	7.3%	\$3,235.1	7.7%	\$3,012.1	7.6%	\$3,381.4	\$3,441.1	\$3,508.1	\$3,547.5
Durable Goods	473.6	4.2	455.2	7.8	421.9	4.8	466.4	471.0	486.1	471.0
Automobiles	214.0	1.1	211.6	8.2	195.8	0.5	215.3	211.7	212.9	225.6
Furniture	173.7	7.2	162.0	10.6	148.3	6.0	172.1	173.5	173.9	175.2
Other Durable	85.9	5.3	81.6	4.9	77.8	15.1	82.6	84.6	86.7	89.9
Nondurable Goods	1,122.6	6.7	1,052.3	5.5	997.9	6.2	1,098.3	1,121.5	1,131.4	1,139.1
Food	595.0	6.3	559.7	6.4	526.4	5.7	587.3	592.2	588.1	602.2
Clothing and Shoes	199.9	7.0	186.8	4.7	178.2	6.4	195.0	198.9	202.2	203.7
Gasoline and Oil	83.5	8.7	76.8	(0.2)	77.0	2.3	77.9	89.5	85.2	81.4
Other Nondurable Goods	244.2	6.6	229.0	5.9	216.3	8.8	238.1	241.0	245.9	251.8
Fuel Oil and Coal	20.2	3.6	19.5	20.4	16.2	1.3	18.7	19.6	19.9	22.8
Other Nondurable	223.9	6.9	209.5	4.7	200.1	9.5	219.4	221.4	226.0	229.0
Services	1,874.1	8.5	1,727.6	8.5	1,592.3	9.2	1,816.7	1,851.7	1,890.6	1,937.5

Source: Survey of Current Business, Dept. of Commerce, Vol. 70, No. 1, January 1990.

Retail Rankings: Still More Attrition

There were a few changes in the 1989 branded retail outlet rankings of the major and semi-major oil companies, but the major trend apparent in the data reported to NPN by 21 companies is the continued weeding out of retail properties by the majority of reporting firms.

In 1989, 13 companies reported decreases totalling 7,528 outlets in their station populations from the previous year, while only six companies said they had increased their station count during the year—a total of 3,753 additional units. Thus, the net loss of stations among all the companies was 3,775. Not all those stations were closed, of course; many were acquired by smaller marketers and dealers in markets being abandoned by the majors as they strive to find the most efficient and profitable retail marketing mix.

Notable gainers in the retail outlet count include Texaco, which added 1,501 outlets and four states to its marketing network in 1989. Texaco now markets in 49 out of the 50 states and leads all companies in both station counts and market coverage. Denver-based Total Petroleum is also on an aggressive growth campaign, almost doubling its 1988 station count and moving up to No. 15 in the station rankings.

	Outlets	1989
1 Texaco	16,890	(1)
2 Exxon	12,091	(2)
3 Unocal	11,000	(5)
4 Chevron	10,682	(3)
5 Amoco	9,909	(7)
6 Shell	9,763	(6)
7 Mobil	9,486	(4)
8 Phillips	8,656	(8)
9 Citgo	8,463	(9)
10 BP America	7,463	(10)
11 Sun	6,445	(11)
12 Conoco	4,915	(12)
13 Gulf (Cumberland Farms)	4,091	(13)
14 American Petrofina	3,177	(14)
15 Total	2,776	(20)
16 Marathon	2,516	(15)
17 Getty	2,240	*
18 Diamond Shamrock	1,947	(17)
19 Ashland	1,800	(16)
20 Kerr-McGee	1,786	(18)
21 Arco	1,699	(19)

*Not reported in 1989

	Number of States		Branded retail outlets	
	'89	'88	'89	'88
American Petrofina	23	24	3,177	3,458
Amoco	31	30	9,909	10,246
Arco	5	5	1,699	1,673
Ashland	18	19	1,800	2,110
BP America	26	28	7,463	7,413
Chevron	33	33	10,682	11,969
Citgo	42	40	8,463	7,697
Conoco	37	37	4,915	4,843
Diamond Shamrock	8	8	1,947	1,973
Exxon	38	37	12,091	12,456
Getty	13	*	2,240	*
Gulf (Cumberland Farms)	14	12	4,091	4,463
Kerr-McGee	20	21	1,786	1,941
Marathon	8	8	2,516	2,527
Mobil	33	36	9,486	11,074
Phillips	35	33	8,656	9,757
Shell	40	41	9,763	10,847
Sun	28	28	6,445	7,058
Texaco	49	45	16,890	15,389
Total	22	20	2,776	1,439
Unocal	43	43	11,000	10,926

Source: NPN questionnaires

Shell Has Big Edge in Credit Card Sales

(Editor's Note: Information on 1989 credit card sales was not available at presstime. For reference purposes, NPN is reprinting the data published in the 1989 Factbook. When the new data is available, it will appear in a regular monthly issue of NPN.)

Shell Oil Co., the nation's largest gasoline retailer the past few years in market share, was also tops in terms of proprietary oil company credit card sales and total credit volume in 1988.

According to the Nilson Report, a newsletter for credit card executives in the

petroleum and other industries, Shell billed out more than \$3.25-billion to the company's cardholders and had a total of \$3.6-billion in credit charges in 1988. Shell also sends out the most statements to active accounts each month (5.1-million). Amoco, however, has the most company cards in circulation—16-million to Shell's 15.3-million—and was second to Shell in total credit volume at almost \$3-billion.

Overall, the 40 companies included in the report did over \$21.8-billion in proprietary card sales in 1988, an increase of 4% over the previous tabulation. Total

transactions remained steady at 1.46-billion last year as did the number of oil company proprietary cards (118-million).

Although they represent little over one fifth of the total, charges for gasoline outlet purchases increased dramatically (up 37%) for third-party cards, the report says. Bank card volume is up 41% while volume for the Discover card jumped from \$18.8-million to \$256-million. Discover, of course, is a new player in the plastic marketplace.

The Nilson Report is published monthly. For information, write P.O. Box 49936, Los Angeles, CA 90049.

Profile: 40 Oil Company Credit Cards in the U.S.—1988

(Add 000 in all categories)

Company	Active Accounts(a)	Total Proprietary Accounts	Proprietary Sales Volume	Bank Card Sales Volume	T&E Sales Volume	Discover Cards	Other Cards(b)	Total Credit Sales(c)
Shell*	5,100	15,300	\$3,250,000	\$363,000	—	\$1,500	\$3,000	\$3,617,500
Chevron	3,600	11,500	\$2,600,000	\$350,000	\$10,000	\$2,600	—	\$2,962,600
Mobil*	3,600	14,000	\$2,100,000	\$300,000	\$80,000	—	—	\$2,480,000
Amoco*	3,450	16,000	\$2,418,000	\$357,000	\$199,000	—	\$5,000	\$2,979,000
Exxon*	3,200	12,100	\$2,450,000	\$219,000	\$5,000	\$7,000	—	\$2,681,000
Texaco*	3,150	13,300	\$2,200,000	\$400,000	\$200,000	\$50,000	\$50,000	\$2,900,000
Unocal	2,100	7,000	\$1,850,000	\$250,000	\$68,000	\$19,000	—	\$2,187,000
Sohio	2,000	5,000	\$1,200,000	\$85,000	—	\$12,000	—	\$1,297,000
Phillips	1,100	4,500	\$900,000	\$200,000	—	\$25,000	—	\$1,125,000
Sunoco*	950	4,700	\$750,000	\$115,000	\$30,000	\$10,000	—	\$905,000
Citgo	750	3,650	\$295,000	\$108,000	—	\$3,500	—	\$406,500
Gulf	478	3,325	\$280,000	\$63,500	—	\$4,700	—	\$348,200
Conoco	353	1,800	\$305,000	\$65,000	—	\$76,000	—	\$446,000
Diamond*	352	1,250	\$290,000	\$52,000	\$3,200	\$2,500	—	\$347,700
Marathon	300	1,100	\$223,000	\$23,500	—	\$3,500	—	\$250,000
Total	180	945	\$155,000	\$110,000	—	\$9,000	—	\$274,000
Fina	161	722	\$106,000	\$30,500	\$45	\$5,100	\$1,000	\$142,645
Ashland	120	330	\$100,000	\$60,000	—	\$11,000	—	\$171,000
Kerr/McGee	114	565	\$56,000	\$15,000	—	\$600	—	\$71,600
Sinclair	84	357	\$59,000	\$18,000	—	\$2,900	\$1,000	\$80,900
Crown	77	175	\$42,000	\$40,000	—	\$1,000	\$1,000	\$84,000
Beacon	67	242	\$45,000	\$2,000	\$35	\$100	—	\$47,135
Coastal	60	200	\$35,000	\$15,100	—	\$1,600	—	\$51,700
Tenneco	40	113	\$27,000	\$22,597	—	\$5,015	\$644	\$55,257
Cenex	30	195	\$21,000	\$3,000	—	—	\$80	\$24,080
Getty	12	35	\$20,000	\$59,000	—	\$495	—	\$79,495
Tesoro	9	42	\$7,000	\$1,400	—	\$110	—	\$8,510
Emro	9	44	\$23,000	\$4,000	—	—	—	\$27,000
Kent	6	23	\$3,000	\$1,000	—	—	—	\$4,000
Aloha	5	23	\$3,000	\$1,000	—	—	—	\$4,000
Sing	5	14	\$4,000	\$4,043	—	\$60	—	\$8,103
Canal	3	11	\$2,000	—	—	—	—	\$2,000
Gibble	3	10	\$2,000	\$680	—	\$100	—	\$2,780
MFA	2	5	\$2,000	\$2,800	—	\$2,000	—	\$6,800
Kwik Fill	2	5	\$30,000	\$4,000	—	—	—	\$34,000
Certified	2	8	\$2,000	—	—	—	—	\$2,000
Illico	2	4	\$1,000	\$1,000	\$30	\$50	—	\$2,080
Iowa	1	2	\$2,000	\$3,600	—	\$25	\$30	\$5,655
Coast	1	1	\$2,000	\$1,700	—	\$15	\$35	\$3,750
E-Z Serve	1	5	\$1,000	\$5,000	—	—	\$3,000	\$9,000
Totals (top 10)	28,250	103,400	19,718,000	2,639,000	502,000	127,100	58,000	23,134,100
Totals (top 20)	31,142	117,414	21,317,000	3,174,500	505,245	245,900	60,000	25,672,645
Grand total (40)	31,478	118,599	21,861,000	3,356,420	595,310	256,471	64,789	26,133,990

*Includes annual-fee cards. (a) Active accounts equal the number of statements mailed monthly. (b) Other cards include third-party fleet cards and government cards. (c) Total credit sales does not include \$2.2-billion generated on general purpose cards at convenience stores if: do not offer proprietary credit.

Source: The Nilson Report, January 1989.

C-Store Sales Up, But Profits Plummet

It was a dramatically mixed picture for the convenience store industry in 1989. Total C-store sales were up, the number of stores increased, but total industry profits before taxes took a dizzying nosedive, dropping 77% below the 1988 level.

According to preliminary data from the soon-to-be released 1990 State of the Convenience Store Industry report from the National Assn. of Convenience Stores, industry profits fell from \$1.163-billion in 1988 to \$271 million in 1989. Hardest hit were some of the largest firms such as Southland and Circle K who are saddled with huge debt loads. On average, NACS says, companies operating fewer than 200 stores were four times more profitable than their larger competitors.

There were some bright spots in the picture, however. Total 1990 industry sales, including gasoline, were \$67.7-billion, up 10.6% from the previous year. Gasoline sales were particularly strong increasing 20% to \$27.1-billion. Merchandise sales rose 3.6% to \$40.6-billion. Average monthly gallonage was up 10% to 56,000 gal. in 1989. NACS reports that 65% of all stores now sell gasoline.

The total store count increased by 1.4% to 70,200 last year. The average investment for a new urban store was 19% to \$918,700.

Meanwhile, NACS's earlier 1989 survey shows that C-store gross margins edged up in 1988 for both gasoline and merchandise (see table below).

C-Store Gross Margin As a Percent of Sales

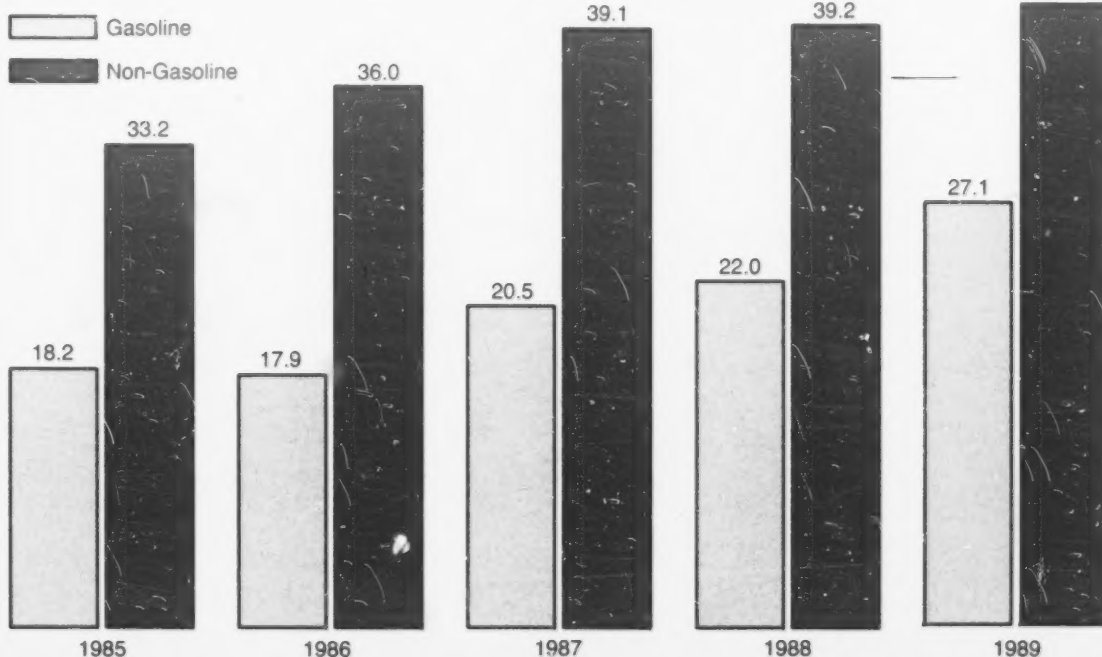
Survey Year	Gasoline Margin %	Non-Gasoline Margin %	Average Margin %
1988	11.5	36.4	26.2
1987	10.6	35.9	24.4
1986	11.2	35.5	25.1
1985	7.3	32.2	22.8
1984	6.0	32.0	21.6

Total Convenience Store Industry Sales



Source: NACS "1990 State of the Industry Report."

Total Non-Gasoline vs. Gasoline Sales (in Billion \$)



Industry Averages by Product Category

	Percent Of Non-Gas Purchases				Gross Margin Percentage		Inventory Turnover Rate
	1988	1987	1986	1985	1988	1987	1988
Cooler							
Beer (Hot & Cold)	11.5%	13.6%	13.9%	27.0%	27%	27%	23.4
Soft Drinks (Hot & Cold)	8.9	9.7	10.3	10.2	37	35	15.2
Juices	1.9	1.2	1.4	1.0	38	40	15.9
Milk & Milk Products	5.5	5.8	5.9	6.6	22	23	54.3
Packaged Deli	0.7	0.9	0.8	1.2	36	34	17.0
Produce	0.3	0.7	0.6	0.4	23	26	52.0
Eggs	0.2	0.3	0.3	0.4	22	26	23.1
Frozen							
Frozen Food	0.6	0.6	0.7	0.7	37	36	6.1
Ice Cream	1.4	1.3	1.4	1.6	40	39	13.6
Ice	0.8	0.8	1.0	0.9	53	56	20.4
Room Temp.							
Bread & Cakes	3.4	3.3	3.3	3.5	30	29	73.1
Cookies	0.7	0.7	0.9	0.8	36	36	10.9
Salty Snacks (Chips, Nuts, etc.)	4.1	4.2	3.9	3.7	36	36	21.4
Candy & Gum	5.0	5.3	4.9	4.9	43	42	17.1
Groceries	5.0	5.6	5.6	5.9	37	35	8.1
Health & Beauty Aids	2.7	3.0	3.0	3.4	39	38	7.7
Tobacco	21.5	20.7	19.8	17.8	30	29	16.7
Publications	4.1	3.7	3.7	5.4	20	20	14.3
Wine/Liquor	1.8	1.3	1.4	1.3	32	30	7.9
Automotive/Motor Oil	1.0	1.4	0.9	0.7	38	40	9.4
General Merchandise	3.7	2.8	2.1	2.6	39	41	7.9
Fast Food							
Sandwiches—Fresh	2.1	1.8	1.3	1.7	41	41	70.7
Sandwiches—Frozen	1.2	1.2	1.3	1.4	37	37	41.5
Deli Services (excluding sandwiches)	3.5	3.0	3.3	3.0	40	45	28.0
Food Cooked On-site	1.5	0.8	0.4	0.3	48	42	83.2
Fountain Drinks	2.8	2.4	3.6	2.6	64	60	15.6
Frozen Beverages	1.1	0.9	0.9	0.9	57	43	8.0
Hot Beverages	1.4	2.1	2.7	1.6	68	66	37.1
Other Fast Food	1.4	0.9	0.9	1.6	38	39	67.9
Total Non-Gas Merchandise	100%	100%	100%	100%			9.5

Source: NACS "1989 State of the Convenience Store Industry" survey.

Comparison of Profits and Losses: 1987-1988

	11-50 Stores		51-100		101-500		Over 500		Average	
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Merchandise Sales	36%	43%	46%	54%	54%	58%	71%	70%	61%	66%
Gas Sales	64	57	54	46	46	42	29	30	39	34
Total Sales	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Cost of Goods Sold	81.4	80.5	78.7	77.5	77.6	76.6	73.4	74.1	73.8	75.6
Gross Profit	18.6	19.5	21.3	22.5	22.4	23.4	26.6	25.9	26.2	24.4
Direct Store Operating Expense	13.6	14.3	16.5	16.8	16.8	17.9	20.2	19.0	19.9	18.2
Store Operating Profit	5.1	5.2	4.8	5.7	5.6	5.5	6.3	6.9	6.3	6.2
Corporate G&A	(3.6)	(3.2)	(3.4)	(3.7)	(3.2)	(4.2)	(3.9)	(4.4)	(3.9)	(4.2)
Other Income	.08	1.3	1.3	1.3	.07	1.3	1.9	1.4	1.8	1.5
Other Expense	(.04)	(0.4)	(.05)	(.08)	(.04)	(.09)	(2.5)	(1.7)	(2.3)	(1.3)
Pretax Profit	1.8%	2.9%	2.2%	2.5%	2.7%	1.7%	1.8%	2.2%	1.9%	2.2%

Source: NACS "1989 State of the Convenience Store Industry" survey.

Average Investment per New Convenience Store

	1988		1987		1986		1985		1984	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Land	\$350,500	\$148,000	\$266,000	\$156,900	\$275,400	\$141,500	\$212,800	\$110,800	\$170,200	\$108,700
Building										
Equipment	199,100	156,500	181,300	152,800	158,300	141,500	180,000	118,900	149,800	106,900
Fast Food	21,900	17,100	22,100	17,700	19,900	18,500	19,000	16,200	14,100	9,100
Gas	84,500	95,200	84,900	85,300	88,000	89,500	65,700	73,700	55,100	49,400
Merchandise	65,600	62,500	64,500	51,500	68,300	55,300	63,300	48,100	61,000	39,300
Total Equipment	172,000	174,800	171,500	154,500	176,400	163,300	148,000	138,000	130,200	97,800
Inventory	51,600	53,400	64,000	53,200	58,600	50,100	56,900	43,100	46,000	42,800
Total Investment	\$773,300	\$532,700	\$682,800	\$517,400	\$668,600	\$496,400	\$597,700	\$410,800	\$496,200	\$356,200

Source: NACS "1989 State of the Convenience Store Industry" survey.

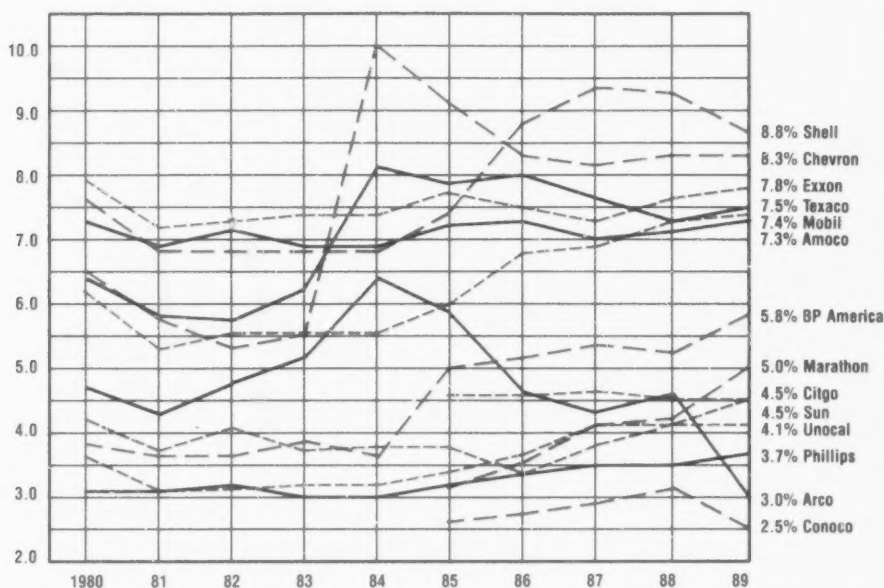
Percent of Stores Offering the Following by Classification Group

Stores	11-50		51-100		101-500		Over 500		Average	
	1988	1987	1988	1987	1988	1987	1988	1987	1988	1987
Specialty Products Offered:										
Fountain Drinks	86	91	95	94	98	94	96	96	96	95
Prepared Foods(Fast Foods)	81	78	62	60	65	64	83	88	83	80
Service Deli	33	30	25	31	38	36	39	32	39	33
On-Premise Bakery	9	4	7	8	20	11	6	0	6	5
Fried Chicken	13	13	9	6	2	3	3	3	3	4
Pizza	20	13	6	6	3	11	4	6	4	7
Other	9	3	5	12	14	13	4	19	4	17
Services Offered:										
Microwave Equipment	88	98	95	89	88	87	95	95	95	92
Lottery Tickets	43	41	43	31	59	38	51	39	51	38
Vending Machines	18	8	5	15	1	9	2	4	2	7
Video Games	14	21	48	46	25	31	55	83	55	60
Film Processing	2	6	3	6	2	3	1	2	1	3
Video Rentals	22	45	35	56	36	51	44	68	40	63
Money Orders	44	63	64	71	63	62	89	93	77	84
Check Cashing	56	60	60	58	78	59	73	88	71	74
Automated Teller Machines	4	0	6	3	19	13	8	14	10	12
Credit Cards	68	63	75	71	49	52	73	36	68	47
Debit Cards	8	7	21	0	12	16	21	13	18	12
Seating for Fast Food	20	18	7	17	6	1	8	8	8	8
POS Scanning	2	-	7	-	0	-	0	-	1	-
Open 24 Hours per Day	51	60	66	59	64	70	92	85	79	76
Parking/Access (not counting parking at pumps):										
No parking, but convenient										
pedestrian access	3	3	2	1	2	1	2	1	2	3
1-10 striped spaces	69	82	47	64	41	77	92	93	72	83
10+ striped spaces	25	15	47	35	35	22	6	6	20	14

Source: "State of the Convenience Store Industry, 1989," National Assn. of Convenience Stores.

TRENDS IN GASOLINE MARKET SHARES

14 Top
Marketers
1980-1989



N.B. This graph was revised in 1988 to include all marketers with national shares of 2.0% or more. In some instances, pre-1985 data was not available.

Shell Hangs In There As Top Gasoline Marketer For Fourth Consecutive Year

Even though its gross gasoline gallonage declined 4.4% in 1989, the loss wasn't significant enough to give Shell Oil any trouble in retaining its crown as the nation's No. 1 gasoline marketer.

Shell, for the fourth straight year, out-sold everyone else easily, besting second place Chevron by a half-billion gallons.

Exxon, Texaco, Mobil, Amoco and BP America traipsed over the finish line in that order, duplicating their 1988 performances.

The 4.4% slippage in 1989 may be foreshadowing problems for Shell in 1990, however. This was the second year in a row that Shell has sustained volume losses (*NPN*—June '89, p24). In 1988 it topped Chevron by a billion gallons. In 1989, this lead slumped to a half-billion.

On the other hand, the year 1989 marked Shell's third consecutive year as a 10-bil-

lion gal.-plus marketer of gasoline. Except for Chevron in 1984 or thereabouts, no other oil company has gotten into the stratospheric 10-billion gal. level that Shell has occupied all alone. Chevron did it in the wake of its acquisition of Gulf Oil six years ago but slipped right out again in the shakeout of the merger that followed.

For the record, these are gross gasoline volumes, as reported by the companies in their annual reports and internal records. They include retail and wholesale gallons. Thus, they are broader-based than the retail-only statistics that are collected by private sources and sometimes differ sharply from them.

Shell and Citgo were the only companies in the top 10 that suffered gallonage losses in 1989—Shell the 4.4% noted above and Citgo, a 1.2% decline. All the others recorded increases of 1.5% (Chevron) to

spectacular 20.9% and 18.5% pluses by Marathon and Sun, respectively.

Marathon's 20.9% increase enabled it to leapfrog over Citgo into eighth place and Sun, which had been 11th in 1988, displaced Unocal as the 10th in line.

Probably the most spectacular change in the 1989 lineup was the statistics disaster that overtook Arco Petroleum Products. Lyondell Petrochemical Co. was owned 100% by Arco and its gasoline gallonage was included in Arco's total through the years. But Lyondell went public in late 1988 and the deal was consummated in January 1989, with Arco retaining 49% ownership and treating it as a corporate asset rather than a wholly-owned subsidiary. That put a big dent in Arco's gasoline volume and dropped it from a normal eighth place ranking to 13th—just ahead of last place Conoco in the list com-

piled by NPN. The NPN compilations rank all companies which control 2% or more of the national market shares.

The 14 companies included in the NPN scoreboard represented about 80% of the total volume sold in the U.S. This was about par for the course, although the restated 1988 gallonage figures dipped abruptly to 77.3%.

What American marketers should keep their eyes on, however, is the fact that about one-third of the gasoline consumed by motorists in this country is vended by firms that are totally or mostly owned by foreign interests—specifically, Shell, BP America, Citgo, Conoco, Total Petroleum and Texaco's 50% deal with Saudi Arabia.

Chevron leads in product sales

As it did last year, Chevron sold more refined products than any other domestic oil company.

Chevron increased its 1989 sales to an average of 1,469,000 b/d while second place Shell slipped badly with an 8.1% loss to an average of 1,207,000 b/d.

Third-place Exxon improved itself with a 3% increase in 1989. It is now only 60,000 b/d away from overtaking second-place Shell.

Fast-moving Marathon had the biggest increase in refined product sales last year, a jump of 19.1%. BP America also had a good showing, an increase of 10.6% in the never-ending flow of gasoline, distillates, resid, avgas and similar items from the nation's refineries.

1989 Refined Product Sales

(Add 000 b/d)

	1989	1988	% Chng.
Chevron	1,469	1,451	1.2%
Shell	1,207	1,314	(8.1)
Exxon	1,147	1,113	3.0
Amoco	1,001	953	5.0
Mobil	939	927	1.3
BP America	898	812	10.6
Texaco	809	1,026	(21.2)
Marathon	666	559	19.1
Sun	655	693	9.7
Phillips	588	585	0.5
Unocal	523	520	0.5
Citgo	517	493	4.9
Conoco	451	437	3.2
Arco			
Prod. (*)	436	418	4.3
Dia.			
Shamrock	180	176	2.3

(*) Excludes Lyondell, which went public in 1989, in restated data for 1989 and 1988.

Gross Gasoline Gallonage and Relative Market Shares—1989^(a)

(NPN projection: 1989 gasoline sales equal 114.6-billion gal.) (b)
(Add 000 gal.)

	—Rank— 1989	1988	% Share of Mkt.	Gross Gals. (c)	% Chng. vs 1988
Shell	1	1	8.829	10,117,800	(4.4)
Chevron	2	2	8.347	9,565,520	1.5
Exxon	3	3	7.785	8,922,060	2.6
Texaco	4	4	7.531	8,630,790	3.5
Mobil	5	5	7.411	8,492,820	2.2
Amoco	6	6	7.317	8,385,510	3.8
BP America	7	7	5.774	6,616,660	3.3
Marathon	8	9	5.030	5,764,080	20.9
Citgo	9	8	4.468	5,120,220	(1.2)
Sun	10	11	4.455	5,104,890	18.5
Unocal	11	10	4.147	4,752,300	2.0
Phillips	12	12	3.721	4,264,410	0.7
Arco Prod. Co. (*)	13	8	2.983	3,418,590	3.7
Conoco	14	14	2.526	2,897,370	1.6
Total			80.3	92,053,020	3.4

(a) Preliminary; (b) Retail gasoline gallonage for 1989 was projected by NPN and based on FHA and API reports. The gross gallonage statistics include some nonhighway consumption which cannot be separated out via industry, federal and state compilations; (c) gross gasoline volumes as reported in annual reports, 10 K's and internal summaries. Specifically excluded from this summary are companies like Cumberland Farms/Gulf, Getty, and Circle K which are privately owned and/or do not issue annual reports; (*) In 1989, Lyondell went public, with Arco retaining only 49%; both 1989 and 1988 date have been restated to reflect this change.

Gross Gasoline Gallons and Relative Market Shares—1988 (Revised)^(a)

(FHA gasoline sales in 1988 totaled 114.7-billion gal.) (b)
(Add 000 gal.)

	—Rank— 1988	1987	Share of Mkt.	Gross Gals. (c)	% Chng. vs 1987
Shell	1	1	9.235	10,593,030	(0.3)
Chevron	2	2	8.220	9,427,950	2.3
Exxon	3	4	7.578	8,692,110	5.0
Texaco	4	3	7.271	8,339,520	(3.4)
Mobil	5	6	7.244	8,308,860	5.2
Amoco	6	5	7.044	8,078,910	1.2
BP America	7	7	5.199	5,963,370	(3.0)
Citgo	8	9	4.517	5,181,540	5.3
Marathon	9	10	4.157	4,767,630	3.3
Unocal	10	12	4.063	4,660,320	9.7
Sun	11	11	3.756	4,307,730	(6.6)
Phillips	12	13	3.675	4,215,750	8.6
Conoco	13	14	3.074	3,525,900	7.5
Arco Prod. (*)	14	8	2.874	3,295,950	—
Total			77.3	88,684,050	—

Same footnotes on 1989 table (above) apply here.

Share of Market—20 Companies in 1987(a)

Production					
	Crude oil and NGL(b)			Natural gas	
	(Add 000 b/d)	% of Mkt.		Millions/CF	% of Mkt.
BP America	851.3	8.51%	Chevron	708,465	4.34%
Exxon	756.0	7.55	Mobil	656,635	4.02
Arco	655.0	6.64	Texaco	644,590	3.95
Shell	558.0	5.58	Exxon	619,770	3.79
Texaco	540.0	5.40	Amoco	617,000	3.78
Chevron	506.9	5.07	Shell	558,085	3.42
Amoco	394.0	3.94	Arco	464,280	2.84
Mobil	338.0	3.38	Tenneco	368,377	2.26
Phillips	287.0	2.87	Phillips	281,780	1.73
USX/Marathon	171.1	1.71	Occidental	281,415	1.72
Unocal	167.0	1.67	USX/Marathon	274,480	1.68
Sun	159.3	1.59	Unocal	271,925	1.66
Occidental	129.0	1.19	Sun	230,315	1.41
DuPont/Conoco	107.0	1.07	DuPont/Conoco	219,365	1.34
Tenneco	100.9	1.01	Burlington Northern	151,000	0.92
Burlington Northern	79.8	0.80	Union Pacific/Champlin	124,830	0.76
Amerada Hess	68.5	0.68	Enron	120,450	0.74
City of Long Beach	67.8	0.68	Pennzoil	115,052	0.72
Union Pacific/Champlin	61.1	0.61	Consolidated Nat'l. Gas	109,562	0.67
Enron	57.1	0.57	Mesa	102,261	0.63

Proved Reserves					
	Crude oil and NGL(b)			Natural Gas	
	(Million/bbl.)	% of Mkt.		(Billions/CF)	% of Mkt.
BP America	2,953.0	8.34%	Amoco	10,690	6.57%
Arco	2,818.0	7.96	Exxon	9,761	6.00
Shell	2,782.0	7.86	Mobil	7,741	4.76
Exxon	2,634.0	7.44	Chevron	7,078	4.35
Chevron	1,809.0	5.11	Shell	6,541	4.02
Amoco	1,670.0	4.72	Arco	5,854	3.60
Texaco	1,603.0	4.53	Texaco	4,783	2.94
Mobil	1,024.0	2.89	Unocal	4,399	2.71
Unocal	656.0	1.85	Phillips	3,369	2.07
Sun	621.0	1.75	USX/Marathon	3,277	2.02
USX/Marathon	621.0	1.75	Tenneco	2,943	1.81
Phillips	457.0	1.29	Burlington Northern	2,807	1.73
Occidental	457.0	1.29	Occidental	2,734	1.68
DuPont/Conoco	351.0	0.99	Sun	2,232	1.37
Tenneco	270.0	0.76	DuPont/Conoco	1,959	1.20
Amerada Hess	201.0	0.57	BP America	1,932	1.19
Santa Fe	129.3	0.39	Mesa	1,904	1.17
Pennzoil	135.0	0.38	Anadarko	1,717	1.06
Union Pacific/Champlin	130.1	0.37	Enron	1,360	0.84
Mesa	88.4	0.25	Union Pacific/Champlin	1,327	0.82

Refining Capacity					
	Operable Capacity (000 b/d)	% of Total capacity	Runs (000 b/d)(c)	% of U.S. total	% utilized
Chevron	1,718.6	11.35%	1,387.7	10.71%	77.7%
Exxon	1,169.0	7.72	1,026.0	7.92	87.8
Shell	1,065.7	7.04	969.0	7.48	90.9
Amoco	939.0	6.20	842.0	6.50	89.7
Texaco	881.5	5.82	836.0	6.45	94.8
Mobil	755.0	4.99	645.0	4.98	85.4
Arco	668.0	4.41	669.4	5.17	100.2
BP America	667.6	4.41	622.5	4.81	99.2
USX/Marathon	513.0	3.39	452.5	3.49	88.2
Unocal	497.0	3.28	428.0	3.30	86.1
Sun	460.0	3.04	427.2	3.30	92.9
DuPont/Conoco	394.3	2.60	348.0	2.69	88.3
Ashland	346.5	2.29	319.1	2.46	92.0
Phillips	305.0	2.01	302.0	2.33	99.0
Coastal	290.4	1.92	173.8	1.34	59.8
Koch	280.0	1.85	NA	NA	—
Petroleos de Venezuela(d)	226.1	1.49	194.3	1.50	85.9
Total Petroleum	191.1	1.26	172.7	1.33	90.4
Kerr-McGee	164.8	1.09	140.9	1.09	85.5
Solomon	155.7	1.03	NA	NA	—

(a) This report is updated biennially, hence no data are available for 1988. The 1989 data will be available later this year or early 1991.

(b) Natural Gas Liquids and Condensate

(c) Runs are not listed in the usual ranking order; they are keyed to operable capacities in Column 1, hence some are not listed in their correct numerical positions.

(d) Petroleos de Venezuela, the Venezuelan national oil company, owns 50% of Citgo Petroleum and 50% of Champlin Refining Company. In 1987, Citgo's operable refining capacity averaged 297,000 b/d and Champlin's averaged 155,200 b/d.

Share of Market—Concentration Ratios

	(% of U.S. total)						
	1987	1986	1985	1980	1975	1970	1965
Gasoline Sales							
4 Firms	28.9	29.5	29.8	28.5	29.5	30.7	—
8 Firms	48.7	49.6	50.3	49.5	50.3	54.6	—
15 Firms	65.0	66.4	67.7	66.3	68.6	74.9	—
20 Firms	70.2	70.5	71.8	72.1	74.7	80.0	—
30 Firms	76.4	76.6	71.2	77.9	—	—	—

Proved Reserves of Crude Oil and Liquids

4 Firms	31.6	29.7	29.3	31.1	36.3	—	—
8 Firms	48.9	47.1	47.6	46.3	55.6	—	—
15 Firms	58.5	57.2	57.9	59.5	70.4	—	—
20 Firms	60.5	59.3	60.0	62.7	74.5	—	—
30 Firms	62.0	61.0	61.7	65.2	—	—	—

Production of Crude Oil and Liquids

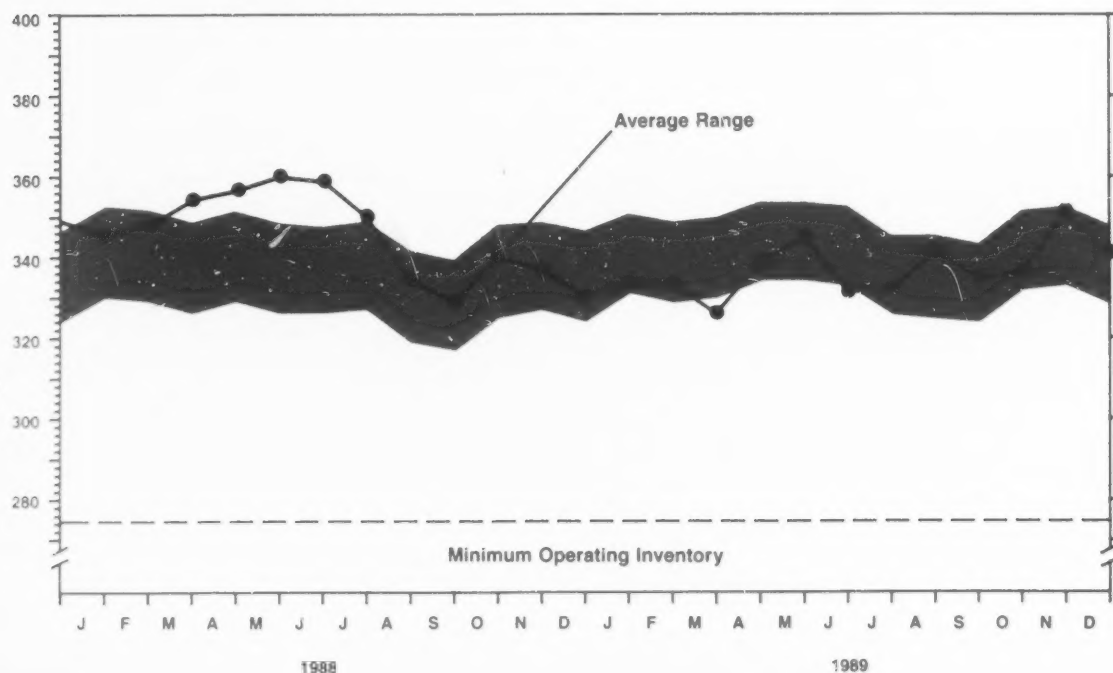
4 Firms	28.3	26.6	26.1	25.3	26.0	26.3	23.9
8 Firms	46.1	44.6	43.5	40.8	41.2	41.7	38.5
15 Firms	57.3	56.4	55.2	56.1	57.0	56.9	50.3
20 Firms	60.6	59.7	58.4	60.6	61.2	61.1	55.0
30 Firms	63.9	63.2	61.9	64.8	—	—	—

Refining Capacity

4 Firms	32.2	33.2	34.4	29.0	29.9	32.5	30.4
8 Firms	52.0	53.0	54.4	49.0	53.5	57.5	54.3
15 Firms	70.5	71.6	73.0	67.0	74.1	78.1	75.0
20 Firms	77.2	79.0	80.3	74.5	81.3	84.3	83.0
30 Firms	86.3	87.9	88.8	82.3	—	—	—

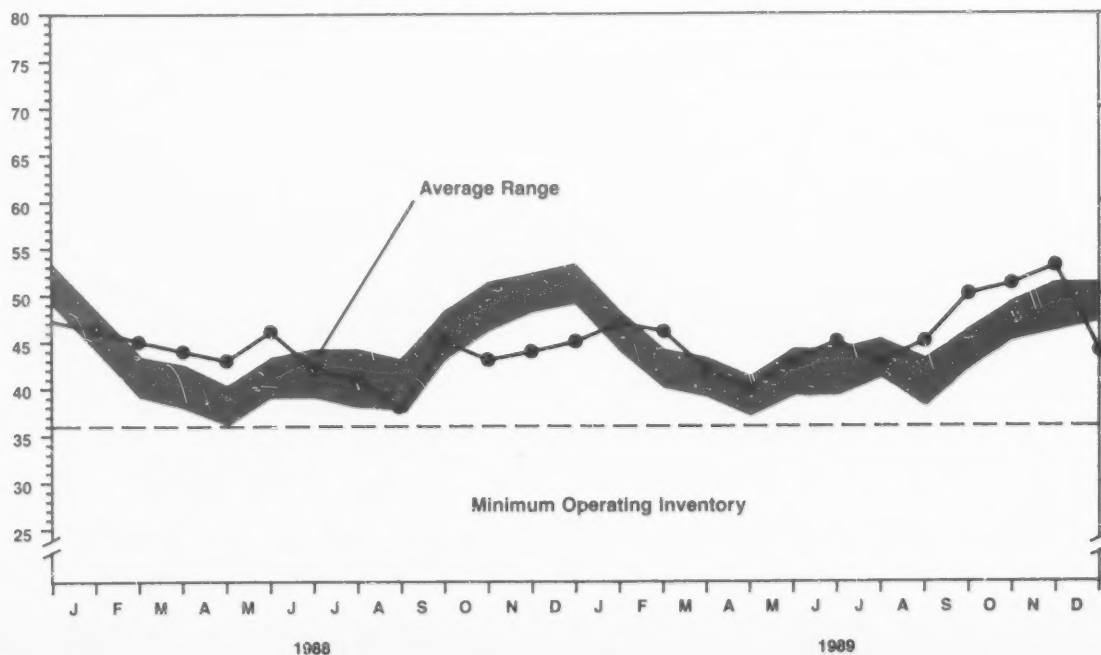
Refinery Runs

4 Firms	32.6	33.2	33.9	31.2	32.9	34.2	31.0
8 Firms	54.0	55.3	57.3	53.9	57.7	61.0	55.3
15 Firms	73.1	74.7	76.5	73.6	79.4	84.6	73.3
20 Firms	79.2	80.9	82.5	81.5	86.8	91.1	81.4

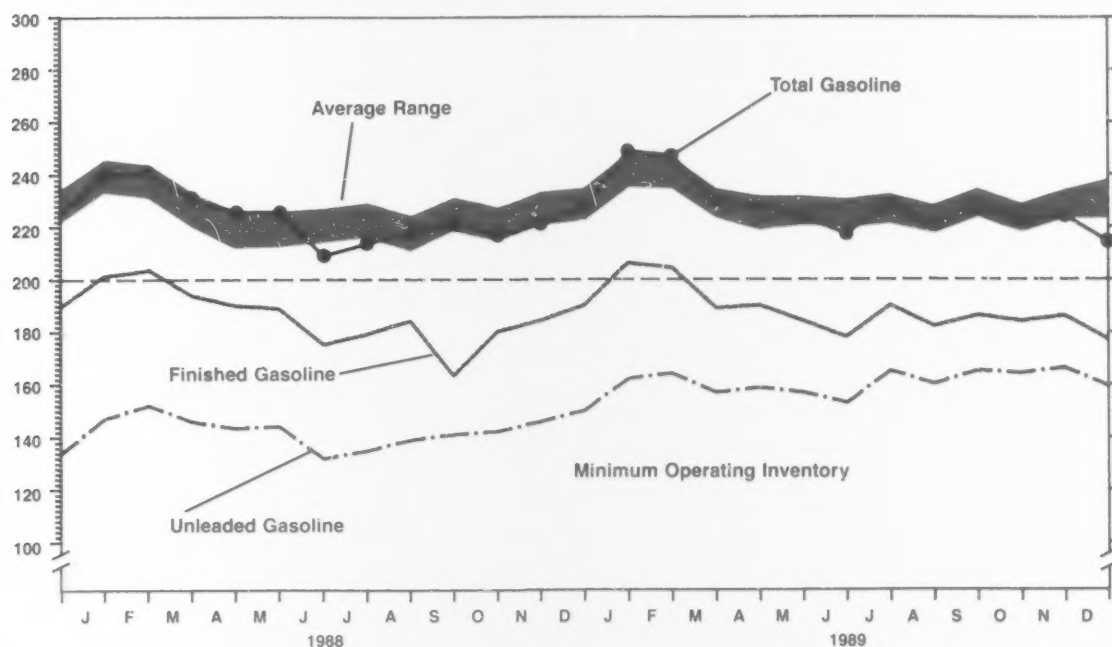
**Stocks of Crude Oil, U.S. Total
(Millions of bbl.)**

Crude Stocks at Primary Levels include those held at refineries, in pipelines, and in lease tanks, but do not include those held in the Strategic Petroleum Reserve operated by the U.S. Government. The average level and width of average range are based on three years of monthly data. The seasonal pattern is based on seven years of monthly data. National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. By its definition, runouts and shortages could occur if inventory levels fall below that level for any extended period of time.

Source: Department of Energy, Weekly Statistical Reports.

**Stocks of Residual Fuel Oil, U.S. Total
(Millions of bbl.)**

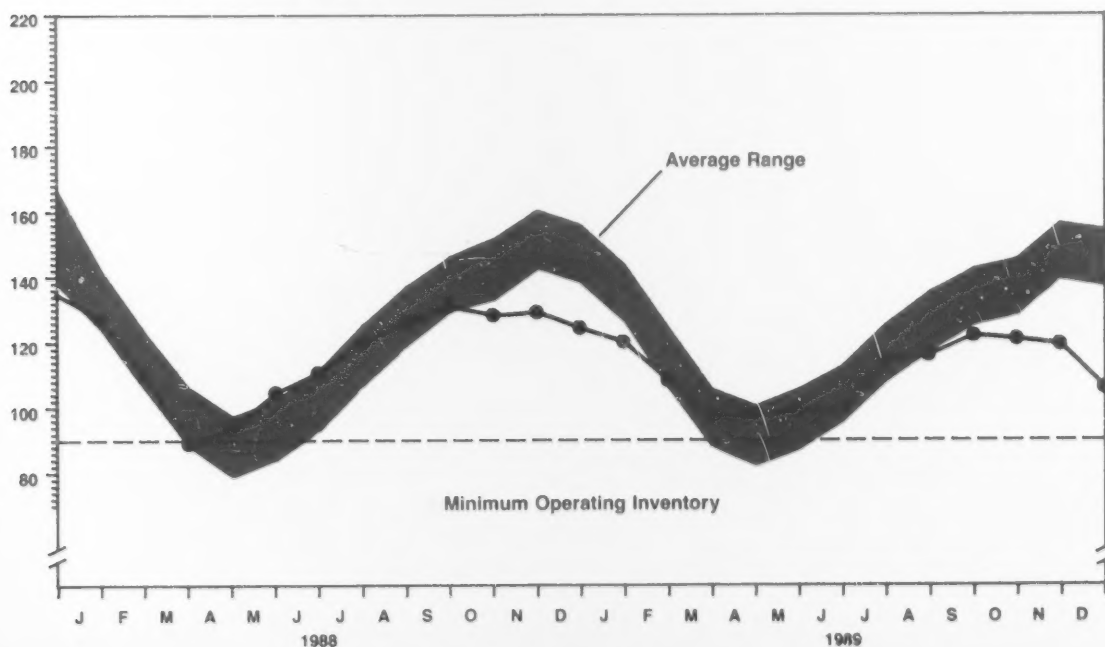
Stocks of Motor Gasoline, U.S. Total (Millions of bbl.)



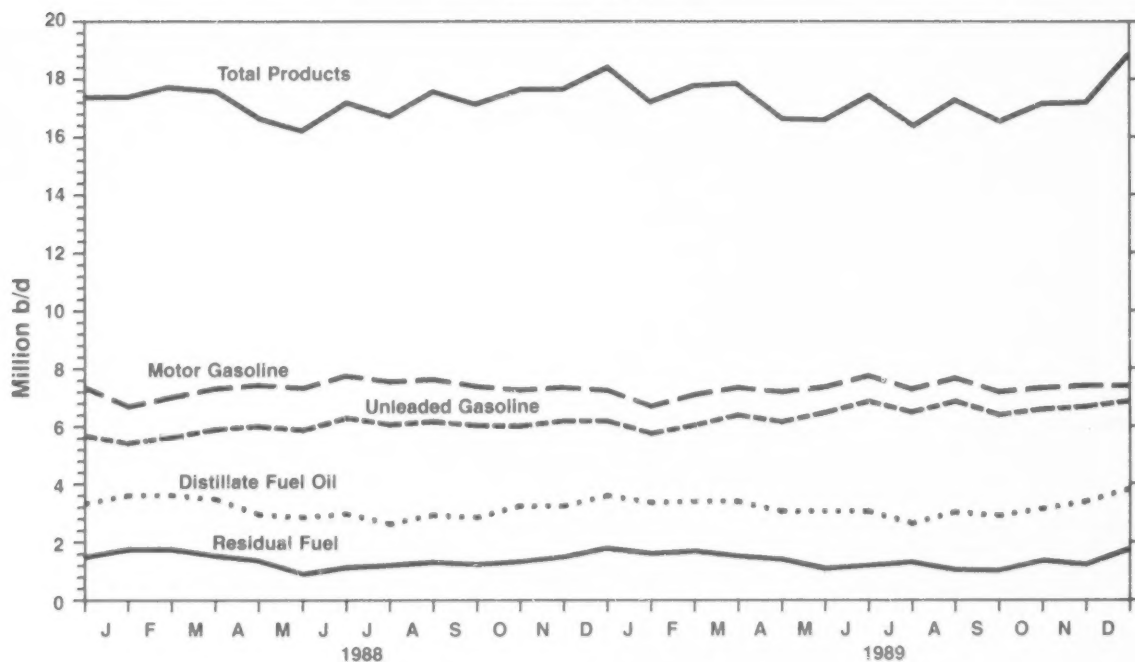
Product stocks at the Primary Level include those held at refineries, in pipelines, and at major bulk terminals. They do not include stocks held in secondary distribution facilities such as jobber tanks, consumer tanks, and/or barges designed for consumer markets. The average level and width of average range are based on three years of monthly data. The seasonal pattern is based on seven years of monthly data. National Petroleum Council defines the Minimum Operating Inventory as the minimum level required for routine operation. By its definition, runouts and shortages could occur if inventory levels fall below that level for any extended period of time.

Source: Energy Information Administration, Weekly Statistical Reports.

Stocks of Distillate Fuel Oil, U.S. Total (Millions of bbl.)



Domestic Product Supply Trends (million b/d)



Petroleum Products Supplied

(Millions of b/d)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1989												
Finished Motor Gasoline	6.7	7.1	7.4	7.2	7.4	7.8	7.3	7.7	7.2	7.3	7.4	7.4
Leaded	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.6	0.5
Unleaded	5.8	6.1	6.4	6.2	6.5	6.9	6.5	6.9	6.4	6.6	6.7	6.9
Jet Fuel	1.5	1.5	1.5	1.4	1.3	1.5	1.4	1.5	1.5	1.5	1.5	1.7
Distillate Fuel Oil	3.3	3.4	3.4	3.0	3.0	3.0	2.6	3.0	2.9	3.1	3.3	3.9
Residual Fuel Oil	1.6	1.7	1.5	1.4	1.1	1.2	1.3	1.1	1.0	1.3	1.2	1.8
Other	4.1	4.0	4.0	3.6	3.7	3.9	3.8	4.0	4.0	4.0	3.8	4.0
Total	17.2	17.8	17.9	16.6	16.5	17.4	16.4	17.3	16.6	17.1	17.2	18.9
1988												
Finished Motor Gasoline	6.7	7.0	7.3	7.4	7.3	7.8	7.5	7.6	7.4	7.3	7.4	7.3
Leaded	1.3	1.4	1.4	1.4	1.4	1.5	1.3	1.3	1.3	1.3	1.2	1.1
Unleaded	5.4	5.6	5.9	6.0	5.9	6.3	6.1	6.2	6.1	6.0	6.2	6.2
Jet Fuel	1.6	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.4	1.5
Distillate Fuel Oil	3.6	3.6	3.5	2.9	2.8	2.9	2.6	2.9	2.8	3.2	3.2	3.6
Residual Fuel Oil	1.7	1.7	1.5	1.3	0.9	1.1	1.2	1.3	1.2	1.3	1.5	1.8
Other	3.9	4.0	3.9	3.6	3.8	3.9	4.0	4.3	4.2	4.3	4.1	4.2
Total	17.4	17.8	17.6	16.6	16.2	17.1	16.7	17.5	17.1	17.6	17.6	18.4
1987												
Finished Motor Gasoline	6.5	6.8	7.0	7.3	7.5	7.5	7.6	7.3	7.2	7.3	7.2	7.3
Leaded	1.7	1.7	1.8	1.9	1.9	1.9	1.8	1.7	1.7	1.7	1.6	1.5
Unleaded	4.8	5.1	5.2	5.4	5.6	5.7	5.7	5.7	5.5	5.6	5.6	5.7
Jet Fuel	1.4	1.4	1.4	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.4	1.5
Distillate Fuel Oil	3.3	3.3	3.1	3.0	2.7	2.8	2.7	2.6	2.6	3.2	2.9	3.3
Residual Fuel Oil	1.5	1.5	1.2	1.2	1.0	1.2	1.3	1.2	1.3	1.1	1.2	1.4
Other	4.0	3.8	3.5	3.7	3.5	3.9	4.1	3.9	4.0	3.9	3.7	4.0
Total	16.7	16.9	16.2	16.5	16.0	16.8	17.1	16.3	16.7	16.9	16.3	17.4

Source: Energy Information Administration, Weekly Status Reports.

Stocks of Motor Gasoline

(Add 000,000 bbl.)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1989												
Finished Motor Gasoline	205.8	203.6	189.0	188.9	183.9	178.4	190.2	182.4	186.0	183.7	185.6	177.1
Leaded	41.5	39.5	32.4	29.4	26.8	25.2	25.1	22.7	21.1	19.3	19.3	17.7
Unleaded	164.2	164.1	156.7	159.4	157.1	153.1	165.1	159.7	164.9	164.4	166.3	159.4
Blending Components	42.8	43.5	41.0	38.6	39.7	38.2	38.7	38.4	40.8	39.7	38.6	36.5
Total Gasoline	248.5	247.1	230.0	227.5	223.6	216.6	228.9	220.8	226.9	223.4	224.2	213.5
East Coast	68.1	67.4	64.1	63.6	62.6	60.7	65.0	61.9	61.7	63.6	63.4	56.9
Midwest	69.0	68.7	65.8	62.8	55.6	54.0	59.3	58.6	62.9	59.3	59.9	57.6
Gulf Coast	67.5	71.6	66.2	64.9	69.2	66.8	66.5	63.6	66.4	63.8	62.3	60.1
Rocky Mountain	8.2	8.0	7.2	6.1	5.7	5.9	6.2	6.0	6.6	6.4	6.9	7.5
West Coast	35.7	31.5	26.8	30.1	30.6	29.2	31.9	30.6	29.3	30.3	31.6	31.4
1988												
Finished Motor Gasoline	200.8	203.0	194.4	190.1	188.8	174.9	179.4	183.5	182.7	180.4	183.9	189.9
Leaded	53.9	51.5	48.8	47.1	44.9	42.7	44.6	44.5	41.9	38.7	38.2	40.2
Unleaded	146.9	151.5	145.6	143.1	144.0	132.2	134.9	139.0	140.8	141.7	145.7	149.7
Blending Components	39.5	38.4	37.3	36.6	37.3	35.2	35.8	36.6	38.7	37.3	37.3	38.6
Total Gasoline	240.3	241.4	231.7	226.7	226.1	210.1	215.3	220.1	221.3	217.7	221.2	228.4
East Coast	68.4	71.3	68.2	63.7	63.3	60.1	62.5	61.9	61.2	58.7	60.7	62.5
Midwest	63.4	66.3	66.3	63.0	63.4	55.0	55.6	60.7	61.3	58.4	58.3	59.8
Gulf Coast	68.9	64.7	61.0	62.3	62.8	61.6	63.7	63.7	61.3	63.4	64.6	65.1
Rocky Mountain	7.4	7.9	7.6	7.1	6.8	6.2	5.7	5.8	6.1	6.3	6.7	7.5
West Coast	32.2	31.2	28.7	30.6	29.9	27.2	27.8	28.0	31.5	30.9	30.9	33.5

Stocks of Distillate Fuel Oil

(Add 000,000 bbl.)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1989												
Total U.S.	120.3	107.5	96.6	98.4	99.3	99.4	115.0	116.1	122.2	121.4	119.4	105.6
East Coast	46.3	37.2	33.3	33.2	32.9	35.6	44.5	48.4	50.2	51.7	49.7	35.1
Midwest	33.0	31.2	27.2	27.4	27.2	27.0	28.8	29.0	30.9	28.7	28.9	30.8
Gulf Coast	27.4	26.2	22.9	23.9	25.3	23.9	27.7	26.1	27.8	27.5	26.8	24.9
Rocky Mountain	2.8	2.7	2.3	2.4	2.8	2.4	2.6	2.6	2.7	2.5	2.8	3.3
West Coast	10.8	10.3	11.0	11.5	11.1	10.6	11.3	10.0	10.6	11.0	11.2	11.5
1988												
Total U.S.	128.1	110.3	89.8	95.0	104.9	110.4	119.9	125.7	131.4	128.2	128.8	123.5
East Coast	48.1	44.4	33.0	30.0	34.9	37.4	44.7	52.3	57.0	56.7	54.6	49.2
Midwest	34.4	29.8	23.3	26.6	28.9	29.7	30.6	31.0	30.5	28.7	29.2	31.3
Gulf Coast	31.7	23.1	21.8	24.7	25.4	27.3	29.2	28.5	28.9	28.8	29.9	28.2
Rocky Mountain	3.3	3.2	2.3	2.4	2.9	3.2	3.2	3.0	2.7	2.5	2.7	2.8
West Coast	10.6	9.7	9.5	11.3	12.8	12.7	12.3	10.9	12.3	11.6	12.4	12.0

Stocks of Residual Fuel Oil

(Add 000,000 bbl.)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1989												
Total U.S.	47.0	46.0	42.4	40.2	42.6	44.8	43.0	44.5	49.5	51.4	52.5	43.8
East Coast	21.3	19.2	16.1	16.1	17.3	18.0	17.5	19.1	22.3	25.2	25.3	18.8
Midwest	3.5	3.3	3.2	2.8	3.1	3.2	3.1	3.1	3.5	3.3	3.3	3.5
Gulf Coast	12.4	13.3	13.9	12.3	13.3	14.4	13.7	15.0	15.2	14.3	14.5	13.8
Rocky Mountain	0.7	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.5
West Coast	9.1	9.6	8.6	8.5	8.3	8.5	8.1	6.7	8.0	8.0	9.0	7.2
1988												
Total U.S.	46.0	45.1	43.7	42.8	45.7	42.2	41.0	38.0	44.6	42.5	44.0	44.6
East Coast	19.6	19.7	17.8	16.2	18.8	16.4	16.6	15.0	19.4	17.7	18.6	18.8
Midwest	3.2	3.1	2.9	3.2	3.2	3.4	3.8	3.6	3.5	3.6	3.4	3.5
Gulf Coast	14.5	14.5	14.2	15.2	15.4	14.2	12.2	10.9	12.2	11.5	12.5	12.4
Rocky Mountain	0.3	0.4	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.7
West Coast	8.3	7.5	8.5	7.8	7.8	7.7	7.9	8.0	9.0	9.0	8.9	9.2

Source: Energy Information Administration, Weekly Status Reports.

Refinery and Bulk Terminal Stocks By States and PAD Regions—1989

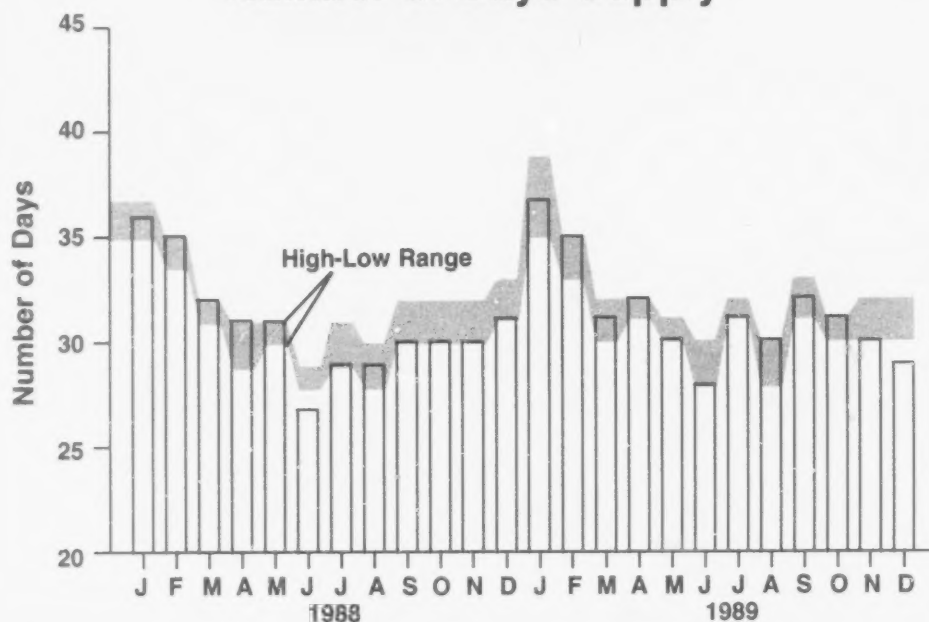
(Add 000 bbl.)

State	Leaded Gasoline	Unleaded Gasoline	Kerosine	Distillate	Residual
PAD District 1					
Connecticut	0	1,597	52	1,451	170
Delaware, D.C., Maryland	49	2,175	112	1,951	2,042
Florida	174	5,107	196	1,591	791
Georgia	119	2,261	69	1,147	192
Maine, New Hampshire, Vermont	0	878	109	1,188	602
Massachusetts	8	1,877	64	1,170	1,090
New Jersey	59	9,174	71	6,265	7,775
New York	31	4,084	353	3,589	3,659
North Carolina	146	2,477	158	861	254
Pennsylvania	21	4,702	540	4,884	1,364
Rhode Island	2	283	w	473	w
South Carolina	89	1,333	99	524	w
Virginia	136	3,371	122	1,550	490
West Virginia	20	205	w	106	w
TOTAL	854	39,524	2,001	26,750	18,824
PAD District 2					
Illinois	523	5,967	305	4,892	1,499
Indiana	299	3,774	151	3,369	503
Iowa	240	983	w	1,116	w
Kansas, Nebraska	815	2,028	21	1,927	38
Kentucky	29	1,449	104	851	w
Michigan	173	2,747	166	1,905	144
Minnesota	383	1,831	w	1,353	157
Missouri	346	1,016	w	867	w
North & South Dakota	280	691	w	609	w
Ohio	81	4,265	430	2,268	379
Oklahoma	553	1,235	w	1,527	280
Tennessee	106	2,153	15	1,055	220
Wisconsin	198	1,351	w	1,279	28
TOTAL	4,026	29,490	1,413	23,018	3,500
PAD District 3					
Alabama	73	1,316	43	897	633
Arkansas	48	605	w	274	w
Louisiana	184	4,334	244	3,256	4,801
Mississippi	176	2,247	19	1,213	w
New Mexico	182	362	w	329	7
Texas	1,319	15,800	456	10,892	7,947
TOTAL	1,982	24,664	767	16,861	13,752
PAD District 4					
Colorado	310	625	w	474	w
Idaho	174	290	w	225	w
Montana	599	578	w	526	69
Utah	268	435	w	580	136
Wyoming	368	477	w	757	w
TOTAL	1,719	2,405	59	2,562	493
PAD District 5					
Alaska	233	546	w	1,066	w
Arizona	453	662	w	365	w
California	2,781	9,955	83	5,779	4,908
Hawaii	64	664	w	512	w
Nevada	133	274	w	200	w
Oregon	680	795	w	813	117
Washington	1,359	2,278	w	1,643	988
TOTAL	5,703	15,174	114	10,378	7,108
U.S. Total	14,284	111,257	4,354	79,569	43,677

W = Withheld to avoid disclosure of individual company data.

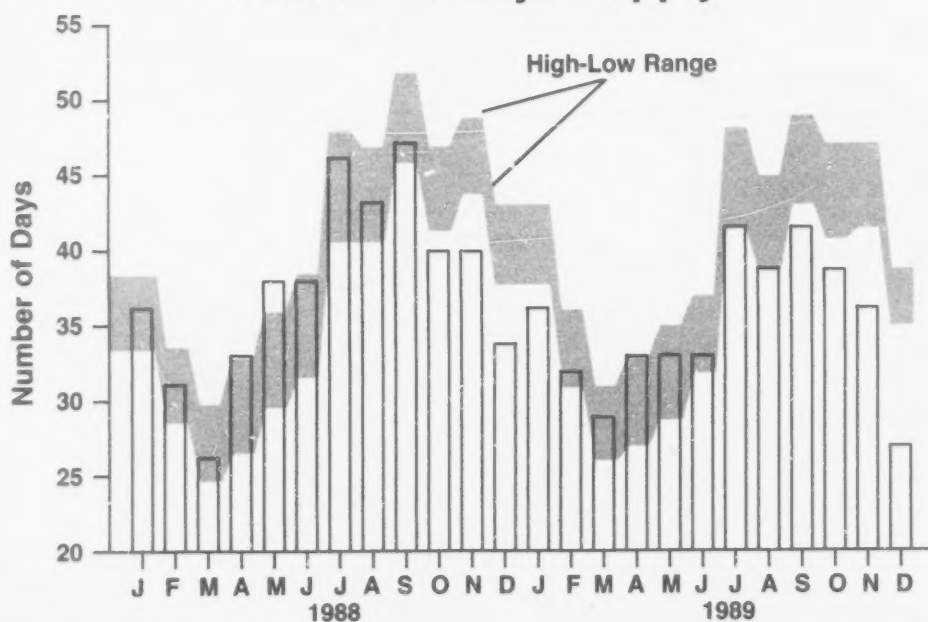
Source: Energy Information Administration, Petroleum Supply Monthly, Table 42, December 1989, published in March, 1990.

Gasoline Inventories Number of Days Supply



Source: Energy Information Administration, Weekly Petroleum Status Report. High-low range is based on lowest and highest values of past three years. Graph by NPN.

Distillate Inventories Number of Days Supply



Source: Energy Information Administration, Weekly Petroleum Status Report. High-low range is based on lowest and highest values of past three years. Graph by NPN.

U.S. Crude Oil Production—1938-1979

(Thousands of b/d)

	1988	1987	1986	1985	1984	1983	1982	1981	1980	1979
PAD District 1										
Florida	21.2	22.7	25.7	31.4	39.6	53.4	70.2	95.3	117.2	129.2
New York	1.5	1.9	2.3	2.9	2.3	2.3	2.3	2.3	2.3	2.3
Pennsylvania	7.7	9.0	10.4	13.3	11.7	11.7	11.7	10.2	7.2	7.9
Virginia	**	**	**	**	**	0.2	0.1	**	**	**
West Virginia	7.2	7.8	8.6	9.7	9.7	9.9	8.9	9.5	6.4	6.6
Total	37.6	41.4	47.0	57.3	63.3	77.5	93.2	117.3	133.1	146.0
PAD District 2										
Illinois	61.4	65.7	74.6	82.9	79.1	80.0	75.9	66.0	62.0	59.7
Indiana	10.0	10.2	13.0	14.2	15.1	14.6	15.2	12.9	13.6	12.9
Kansas	160.7	164.1	183.7	206.6	207.5	196.1	193.2	180.3	164.3	156.2
Kentucky	14.9	15.7	17.7	21.3	21.3	21.6	20.2	17.9	16.2	15.1
Michigan	63.5	71.2	70.4	74.8	83.7	86.9	86.2	89.5	97.8	95.5
Missouri	0.4	0.3	0.3	0.6	0.8	0.7	0.6	0.6	0.3	0.2
Nebraska	16.3	16.7	19.4	19.0	17.7	17.5	18.8	18.3	17.0	16.6
North Dakota	107.5	113.3	125.0	139.3	144.3	138.9	129.5	124.4	110.2	84.7
Ohio	32.0	33.3	36.8	41.1	41.8	41.0	39.9	37.1	35.3	32.8
Oklahoma	352.1	368.2	386.6	445.9	461.3	434.5	434.6	422.1	410.2	393.6
South Dakota	4.5	4.5	4.3	4.4	3.7	3.2	3.2	2.7	2.1	2.3
Tennessee	1.6	1.7	2.1	2.9	3.3	3.6	3.7	3.2	2.4	1.9
Total	824.9	864.8	933.6	1,052.4	1,078.8	1,037.9	1,020.4	974.4	931.1	871.3
PAD District 3										
Alabama	56.8	56.5	57.9	59.1	54.3	51.4	54.8	56.6	60.5	52.5
Arkansas	37.2	39.0	43.2	52.2	51.3	51.6	51.6	50.3	49.8	51.7
Louisiana	1,194.4	1,304.2	1,403.0	1,392.4	1,411.7	1,313.9	1,255.9	1,231.0	1,281.8	1,341.6
Mississippi	75.3	77.0	82.2	83.9	89.8	86.2	90.5	93.7	98.2	102.3
New Mexico	194.6	198.2	207.4	215.2	217.4	205.9	194.6	196.1	205.1	218.2
Texas	2,084.2	2,152.0	2,300.3	2,435.2	2,478.8	2,473.0	2,535.1	2,589.4	2,670.6	2,789.3
Total	3,642.5	3,911.0	4,094.0	4,238.0	4,303.4	4,182.0	4,182.5	4,217.1	4,366.0	4,555.6
PAD District 4										
Colorado	88.4	78.9	80.3	82.9	79.0	79.6	83.7	83.0	81.4	86.5
Montana	63.8	68.7	74.2	81.6	81.5	80.1	84.7	84.4	80.0	82.1
Utah	90.2	98.0	107.3	111.8	95.0	80.9	61.5	70.9	68.2	76.0
Wyoming	311.4	315.8	332.4	352.1	340.5	324.1	324.1	357.7	345.2	361.3
Total	553.8	561.1	594.2	628.4	596.0	564.7	554.0	596.0	574.8	607.9
PAD District 5										
Alaska	2,016.8	1,961.5	1,866.6	1,825.3	1,727.1	1,713.8	1,695.6	1,609.1	1,616.6	1,400.9
Arizona	0.3	0.4	0.4	0.5	0.6	0.6	0.9	1.0	1.1	1.3
California	1,054.7	1,084.1	1,114.2	1,161.3	1,128.8	1,108.7	1,100.2	1,054.7	975.2	965.1
Nevada	8.8	8.5	8.0	8.3	5.2	2.2	1.7	1.9	2.4	3.4
Total	3,080.1	3,054.5	1,989.2	2,995.4	2,861.7	2,825.3	2,798.4	2,666.7	2,595.3	2,370.7
Total U.S.	8,140	8,432.8	8,680.1	8,972	8,903	8,688	8,648	8,571	8,600	8,551

**Less than 100 barrels per day.

Source: American Petroleum Institute Data Book January 1990.

IPAA's New Outlook: Domestic Output Down, Imports Up, Demand Stable

(Add 000 b/d)

DEMAND	1st Qtr	2nd Qtr	1990 Forecast 3rd Qtr	4th Qtr	1990 Average	1989-90 % Chg.
Domestic Products			(Add 000 b/d)			
Motor Gasoline	6,990	7,501	7,485	7,354	7,334	0.1%
Aviation Fuels	1,516	1,466	1,523	1,582	1,522	0.7
Middle Distillates	3,363	3,039	2,907	3,457	3,191	(1.4)
Residual Fuel Oil	1,452	1,166	1,193	1,403	1,303	(3.4)
Other Products	3,767	3,702	3,992	3,946	3,857	0.9
Domestic Demand	17,106	16,874	17,100	17,742	17,207	(0.2)
Total Exports	827	802	782	320	608	(5.9)
TOTAL DEMAND	17,933	17,676	17,882	18,562	18,015	(0.5)

SUPPLY						
Domestic Production						
Crude Oil	7,333	7,275	7,135	7,140	7,225	(5.3)
Natural Gas Liquids	1,525	1,480	1,530	1,557	1,534	(0.1)
Total Domestic Production	8,858	8,755	8,665	8,697	8,759	(4.4)
Imports						
Motor Gasoline	407	425	434	413	421	(0.2)
Aviation Fuels	129	113	100	108	111	7.3
Middle Distillates	343	289	268	360	326	6.1
Residual Fuel Oil	646	553	577	594	571	(5.4)
Other Products	543	740	774	782	779	7.0
Total Imports	2,468	2,060	2,053	2,257	2,210	1.7
Crude Oil Imports	5,976	5,016	4,874	5,137	5,153	7.0
Total Imports	6,395	5,115	5,527	5,420	5,383	5.5
Crude Supply	1,184	825	1,019	981	963	23.0
TOTAL SUPPLY	15,137	17,789	16,231	16,380	16,137	1.2
Refinery Inputs	12,350	13,385	15,612	13,475	13,499	1.3

CLOSING STOCKS (millions of bbl.)

Motor Gasoline	229.5	217.7	222.2	223.0	223.0	4.4
Aviation Fuels	48.5	47.9	49.6	48.6	48.6	8.1
Middle Distillates	105.5	112.0	134.3	131.2	131.2	18.4
Residual Fuel Oil	44.9	44.0	45.9	44.5	44.5	1.6
Other Products	256.7	265.5	292.0	261.0	261.0	4.1
Total Products	685.1	706.6	744.2	708.3	706.3	6.7
Crude Oil Stocks	362.4	349.2	343.0	338.2	338.2	(0.9)
TOTAL STOCKS	1,047.5	1,055.8	1,087.2	1,046.5	1,044.5	4.1

Source: IPAA Supply and Demand Committee, May, 1990.

The Independent Petroleum Assn. of America's latest petroleum supply and demand forecast is beginning to sound like a broken record—domestic production declining, imports rising, demand slack.

The forecast, released in May by IPAA's supply and demand committee, projects a drop in U.S. crude oil output to an average of 7.2-million b/d. "It is the lowest U.S. production level since

1954," IPAA says. Imported crude and products will jump 6% this year to an annual average of 8.4-million b/d, representing 49% of U.S. demand, compared to 46% in 1989.

Petroleum demand is forecast to remain essentially unchanged in 1990 at 17.2-million b/d. "Warmer weather during the first quarter of 1990 and the projected slowdown in U.S. economic growth are the primary reasons for slack demand," IPAA says.

U.S. Estimated Petroleum Balance (Add 000 b/d)

	Full year			4th Quarter			3rd Quarter			2nd Quarter		
	1989	1988	Chng.	1989	1988	Chng.	1989	1988	Chng.	1989	1988	Chng.
Petroleum Products Supplied From Primary Storage (a)												
Products Supplied:												
Motor gasoline, total	7,318	7,336	(0.2)	7,312	7,331	(0.3)	7,395	7,482	(1.2)	7,444	7,514	(0.9)
Finished leaded gasoline	826	1,341	(38.4)	592	1,210	(51.1)	756	1,317	(42.6)	920	1,454	(36.7)
Finished unleaded gasoline	6,492	5,995	8.3	6,720	6,121	9.8	6,639	6,165	7.7	6,524	6,060	7.7
Naphtha jet	210	213	(1.4)	224	221	1.4	209	207	1.0	204	215	(5.1)
Kerosine jet	1,280	1,236	3.8	1,378	1,271	8.4	1,305	1,215	7.4	1,195	1,178	1.4
Distillate fuel oil	3,155	3,121	1.1	3,447	3,322	3.8	2,897	2,777	4.3	2,861	2,837	0.8
Residual fuel oil	1,359	1,378	(1.4)	1,481	1,534	(3.5)	1,131	1,256	(10.0)	1,293	1,111	16.4
All other oils	4,142	4,160	(0.4)	4,307	4,337	(0.7)	4,116	4,283	(2.7)	3,939	3,861	-2.0
Reclassified	(168)	(161)	4.3	(181)	(158)	14.6	(179)	(137)	30.7	(144)	(115)	25.2
Total domestic products supplied	17,296	17,284	0.1	17,968	17,858	0.6	16,924	17,083	(0.9)	16,792	16,601	1.2
Exports	824	815	1.1	806	820	(1.7)	846	772	9.6	838	809	3.6
Total Products Supplied	18,120	18,099	0.1	18,774	18,678	0.5	17,770	17,855	(0.5)	17,630	17,409	1.3
Supply:												
Domestic production												
Crude oil	7,587	8,140	(6.8)	7,350	7,996	(8.1)	7,479	8,006	(6.6)	7,712	8,229	(6.3)
Natural gas liquids	1,565	1,625	(3.7)	1,514	1,654	(8.5)	1,552	1,618	(4.1)	1,658	1,620	2.3
Other supply	885	904	(2.1)	718	932	(23.0)	1,000	1,016	(1.6)	924	811	13.9
Total domestic supply	10,037	10,669	(5.9)	9,582	10,582	(9.5)	10,031	10,640	(5.7)	10,294	10,660	(3.4)
Imports:												
Crude oil, total (b)	5,786	5,055	14.5	6,037	5,233	15.4	6,288	5,083	23.7	5,776	5,221	10.6
Canadian	618	681	(9.3)	605	672	(10.0)	606	675	(10.2)	633	717	(11.7)
Other	5,168	4,374	18.2	5,432	4,561	19.1	5,682	4,408	28.9	5,143	4,504	14.2
Products, total	2,166	2,295	(5.6)	2,060	2,472	(16.7)	2,068	2,262	(8.6)	2,158	2,051	5.2
Residual Fuel oil	604	344	(6.2)	551	788	(30.1)	470	585	19.7	577	421	37.1
Other	1,562	1,651	(5.4)	1,509	1,684	(10.4)	1,598	1,677	(4.7)	1,581	1,630	(3.0)
Total imports	7,952	7,350	8.2	8,097	7,705	5.1	8,356	7,345	13.8	7,934	7,272	9.1
Total supply	17,989	18,019	(0.2)	17,679	18,287	(3.3)	18,387	17,985	2.2	18,228	17,932	1.7

(a) Preliminary; (b) Does not include SPR reports or reserves.

Source: American Petroleum Institute, Monthly Statistical Reports, 1989.

U.S. Refinery Operations (Add 000 b/d)

	Full year			4th Quarter			3rd Quarter			2nd Quarter		
	1989	1988	Chng.	1989	1988	Chng.	1989	1988	Chng.	1989	1988	Chng.
U.S. Refinery Operations (a)												
Input to crude oil distillation units	13,563	13,447	0.9	13,472	13,405	0.5	14,010	13,708	2.2	13,808	13,565	0.3
Operable capacity	15,671	15,928	(1.6)	15,630	15,925	(1.9)	15,613	15,980	(2.2)	15,671	15,910	(1.5)
Refinery utilization (%)	86.5	84.4	2.5	86.2	84.2	2.4	89.7	85.9	4.4	86.8	85.3	1.8
Crude oil runs	13,401	13,246	1.2	13,323	13,223	0.8	13,851	13,546	2.3	13,450	13,350	0.7

(a) Preliminary.

Source: American Petroleum Institute, Monthly Statistical Reports, 1989.

Crude Oil and Product Inventories (Add 000,000 bbl.)

	Full Year			4th Quarter			3rd Quarter			2nd Quarter		
	1989	1988	Chng.	1989	1988	Chng.	1989	1988	Chng.	1989	1988	Chng.
Stocks												
Crude oil (a)	342.0	330.4	3.5	342.0	330.4	3.5	334.4	328.6	1.8	333.6	358.9	(7.0)
Unfinished oils	104.6	99.9	4.7	104.6	99.9	4.7	105.2	109.2	(3.7)	112.5	115.4	(2.5)
Total motor gasoline (b)	214.2	228.4	(6.2)	214.2	228.4	(6.2)	224.3	221.3	1.4	219.5	210.1	4.5
Finished leaded gasoline	17.4	40.2	(56.7)	17.4	40.2	(56.7)	21.7	41.9	(48.2)	24.7	42.7	(42.2)
Finished unleaded gasoline	160.0	149.7	8.9	160.0	149.7	8.9	162.1	140.8	15.1	156.0	132.2	18.0
Naphtha jet	5.9	6.1	(3.3)	5.9	6.1	(3.3)	7.0	8.5	7.7	6.0	6.7	(10.4)
Kerosine jet	35.6	37.7	(5.6)	35.6	37.7	(5.6)	40.4	40.1	0.7	40.0	38.8	3.1
Distillate fuel oil	108.0	123.5	(12.6)	108.0	123.5	12.6	122.6	131.5	(6.8)	100.9	110.4	(8.6)
Residual fuel oil	43.3	44.6	(2.9)	43.3	44.6	(2.9)	44.9	44.6	0.7	43.0	42.2	1.9
All other oils	135.8	167.1	(18.7)	135.8	167.1	(18.7)	211.7	191.9	10.3	199.9	179.3	11.5
Total all oils	989.4	1,037.7	(4.7)	989.4	1,037.7	(4.7)	1,090.5	1,073.7	1.6	1,055.4	1,061.8	(0.6)

(a) Does not include Strategic Petroleum Reserve; (b) Total includes leaded, unleaded and blending components.

Source: American Petroleum Institute, Monthly Statistical Report, December 1989.

Domestic Supply Trend (Add 000,000 bbl.)

Year	All products	Gasoline	Kerosine (a)	Distillate	Residual	LPG	Lubes	Other
1989 (b)	6,294	2,674	573	1,151	493	607	56	740
1988	6,261	2,670	481	1,132	487	631	58	802
1987	6,083	2,630	465	1,086	461	588	59	794
1986	5,943	2,576	439	1,064	518	555	52	739
1985	5,740	2,493	404	1,047	439	584	53	720
1980	6,932	2,536	397	1,389	1,033	414	58	1,105
1975	5,953	2,436	347	1,041	899	362	50	823
1970	5,364	2,131	358	927	804	363	50	731
1965	4,202	1,720	220	776	587	307	47	545
1960	3,610	1,512	132	685	559	227	43	427

(a) Kerosine includes jet fuel; (b) Preliminary.

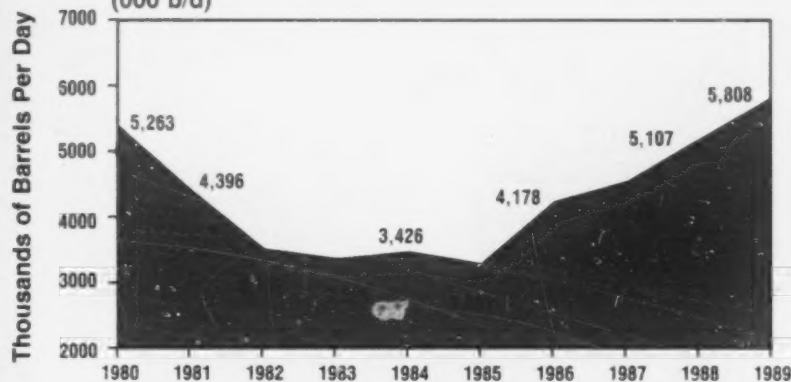
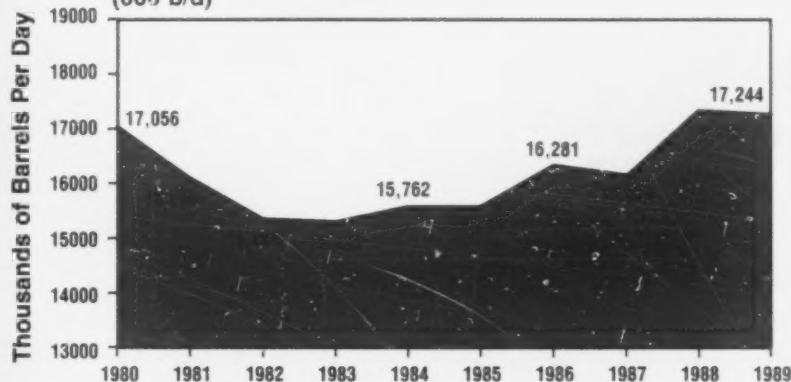
Source: Energy Information Administration, Petroleum Supply Monthly, December 1989, Table 5, published in March 1990.

Petroleum Product Consumption—1988

(Add 000 bbl.)

	Motor Gasoline	Aviation Fuels	Middle Distillates (a)	Residual Fuel Oil	Asphalt	Propane	All Other (b)	Total Products
Alabama	50,517	2,748	21,817	2,730	5,253	3,761	12,722	99,548
Alaska	5,533	15,965	8,780	6,059	702	186	5,454	42,679
Arizona	39,472	6,352	9,198	10	2,698	1,136	8,625	67,491
Arkansas	29,183	946	12,807	53	1,381	3,461	7,008	54,839
California	320,654	77,640	85,521	52,458	15,428	11,118	82,463	645,282
Colorado	36,582	5,910	10,104	238	3,572	3,016	8,706	68,128
Connecticut	31,901	1,771	16,389	28,162	1,864	1,144	11,902	93,133
Delaware	8,414	192	7,171	2,468	540	1,745	3,008	23,538
Dist. of Columbia	4,334	0	3,993	46	800	43	1,350	10,566
Florida	145,362	24,567	34,301	35,563	9,563	7,783	37,676	294,815
Georgia	81,303	17,481	25,745	2,471	7,296	6,147	20,577	161,020
Hawaii	8,226	9,672	3,397	15,242	353	357	5,457	42,704
Idaho	10,743	406	5,240	29	404	523	2,541	19,886
Illinois	103,103	3,172	28,986	2,437	5,635	10,091	22,479	175,903
Indiana	62,287	15,714	30,504	1,849	6,980	6,022	18,074	141,430
Iowa	32,218	660	17,073	26	2,226	5,512	8,456	66,171
Kansas	39,740	3,559	17,831	854	4,402	18,697	12,466	97,549
Kentucky	44,035	4,404	20,311	412	2,631	3,223	10,991	86,007
Louisiana	57,912	26,531	45,292	35,196	2,411	11,141	26,151	204,634
Maine	15,528	850	10,199	12,300	1,840	386	6,021	47,114
Maryland	45,440	2,963	20,519	9,197	4,709	1,364	12,336	96,528
Massachusetts	60,595	9,243	40,283	38,869	1,773	1,611	22,326	174,700
Michigan	102,715	6,860	25,758	1,579	3,839	10,137	22,108	172,996
Minnesota	48,215	4,666	18,810	1,229	4,925	6,184	12,312	96,341
Mississippi	36,433	7,260	20,917	309	2,641	8,975	11,214	87,749
Missouri	60,936	7,209	18,151	912	5,688	7,509	14,711	115,116
Montana	11,163	836	5,781	182	1,910	1,315	3,104	24,291
Nebraska	18,461	632	12,988	74	1,269	3,247	5,373	42,044
Nevada	14,626	4,860	6,596	119	936	816	4,096	32,049
New Hampshire	7,712	208	8,286	1,994	432	1,167	2,901	22,700
New Jersey	108,616	35,634	76,089	38,237	5,344	2,622	39,053	305,595
New Mexico	18,822	1,453	9,070	193	2,124	5,045	5,378	42,085
New York	125,255	3,700	65,535	60,059	9,250	4,887	39,367	308,053
North Carolina	80,284	5,505	32,489	6,696	5,437	7,399	20,192	158,002
North Dakota	7,989	676	6,535	190	1,188	2,654	2,818	22,050
Ohio	119,486	15,265	42,608	2,144	8,994	6,284	28,539	223,320
Oklahoma	50,874	7,922	18,138	1,233	3,584	6,430	12,920	101,101
Oregon	31,877	2,749	16,562	3,230	2,437	1,181	8,503	66,539
Pennsylvania	120,318	11,343	63,338	23,592	7,149	6,443	34,019	266,202
Rhode Island	12,947	602	9,069	2,234	2,144	410	4,015	31,421
South Carolina	39,595	1,052	13,492	3,613	3,882	3,052	9,478	74,164
South Dakota	8,824	1,132	5,756	2	883	1,253	2,615	20,465
Tennessee	67,991	3,718	28,349	442	5,468	2,834	15,941	124,743
Texas	311,108	97,101	144,562	45,710	14,514	80,756	101,647	795,398
Utah	19,469	4,953	7,854	451	1,075	1,330	5,147	40,279
Vermont	4,251	90	2,530	232	510	526	1,193	9,332
Virginia	71,992	11,428	35,332	8,301	4,653	2,874	19,718	154,298
Washington	53,931	18,018	24,286	13,573	1,932	2,382	16,721	130,843
West Virginia	15,054	484	8,945	350	884	298	3,520	27,545
Wisconsin	49,074	1,025	22,850	455	3,435	4,934	11,952	93,525
Wyoming	7,183	290	8,553	512	1,052	3,158	3,040	23,788
TOTAL U.S.	2,858,282	487,426	1,232,476	464,516	190,040	284,567	808,385	6,325,692

(a) Middle distillates include kerosine; (b) All other includes naphtha, lubricants, waxes, petroleum coke and still gas.
Source: Independent Petroleum Assn. of America, "The Oil and Gas Producing Industry in Your State," 1989-1990.

Crude Oil Imports
(000 b/d)**Domestic Supply of Oil Products**
(000 b/d)**Unleaded Gasoline:**
The Growth by Years
(Add 000 b/d)

	Total Gasoline Consumption	Unleaded Gasoline Consumption	Unleaded Percent of total
1989 Average	7,326	6,500	88.7
January	6,732	5,753	85.4
February	7,045	6,119	86.3
March	7,421	6,381	86.0
April	7,150	6,238	87.2
May	7,416	6,486	87.5
June	7,803	6,886	88.3
July	7,316	6,518	89.1
August	7,709	6,917	89.7
September	7,225	6,428	89.0
October	7,256	6,586	90.8
November	7,356	6,746	91.7
December	7,420	6,909	93.1
1988 Average	7,336	5,995	81.7
January	6,693	5,395	80.6
February	7,039	5,607	79.7
March	7,323	5,894	80.5
April	7,430	5,991	80.6
May	7,303	5,861	80.3
June	7,817	6,336	81.1
July	7,482	6,144	82.1
August	7,556	6,232	82.5
September	7,404	6,115	82.6
October	7,271	5,988	82.4
November	7,379	6,157	83.4
December	7,344	6,220	84.7
1987 Avg.	7,206	5,470	75.9
1986 Avg.	7,034	4,854	69.0
1985 Avg.	6,831	4,406	64.5
1984 Avg.	6,622	3,647	55.1
1983 Avg.	6,588	3,264	49.5
1979 Avg.	7,034	2,798	39.8
1977(a) Avg.	7,177	1,976	27.5

(a) Unleaded was mandated in July, 1977.
Source: Energy Information Administration,
Monthly Energy Review, December 1989.

Supply and Demand, Principal Products (Add 000 bbl.)

	Motor Gasoline	Aviation Gasoline	Distillate Fuel Oil	Residual Fuel Oil	Jet Fuel (a)	Lubricants	Asphalt
Domestic Supply							
1989(b)	2,641,140	9,427	1,150,845	492,750	542,305	56,400	165,221
1988	2,677,640	9,809	1,139,530	502,970	524,733	58,638	178,726
Production							
1989(b)	2,543,320	9,199	1,058,135	347,480	512,127	59,738	154,997
1988	2,538,940	9,208	1,043,535	337,990	524,733	62,653	165,511
Imports							
1989(b)	132,495	181	110,230	222,650	37,256	4,005	11,192
1988	147,825	157	110,230	235,060	102,416	3,645	11,438

(a) Includes Naphtha and Kerosine-based fuels; (b) Preliminary including some estimates by NPN.

U.S. Oil Imports (a) (Add 000 b/d)

Year	Crude Oil	Other Products	Residual Fuel Oil	Total Imports	% of Total U.S. Supply
1989(b)	5,808	1,561	610	7,979	43.4%
1988	5,107	1,651	644	7,402	42.8
1987	4,674	1,439	565	6,678	40.0

(a) Does not include Strategic Petroleum Reserve; (b) Preliminary.
Source: Energy Information Administration, Petroleum Supply Monthly.

Origins of U.S. Oil Imports

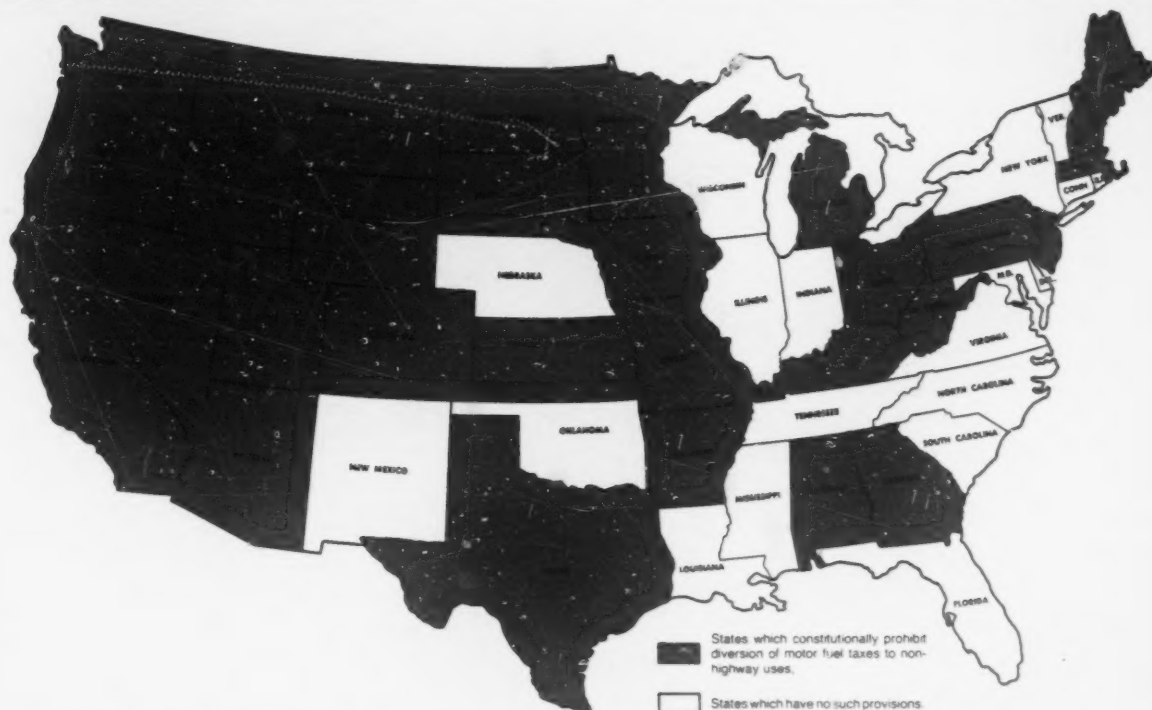
	OPEC Sources		Arab OPEC		Hemispheres	
	000 b/d	% of total imports	000 b/d	% of total imports	Western 000 b/d	Eastern 000 b/d
1989(a)	4,116	51.6%	2,122	26.6%	4,513	3,466
1988	3,520	47.6	1,839	24.8	4,361	3,077
1987	3,060	45.8	1,274	19.1	4,069	2,608

(a) Preliminary.
Source: Energy Information Administration, Petroleum Supply Monthly.

Total Well Completions**Proved Reserves (a)****Supply (Add 000 b/d)**

Year	Total	Dry	%Dry	Crude Oil (b)	Crude Production/ Reserve Ratio	Natural Gas (c)	Natural Gas Production/ Reserve Ratio	Domestic Crude & Natl. Gas Lqds.	Crude & Product Imports
1989(d)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	9,233	7,979
1988	31,168	9,874	31.7%	26,825	9.5	168.7	9.0	9,815	7,193
1987	35,232	11,099	31.6	27,256	9.5	187.2	11.6	10,008	6,878

(a) As of Jan. 1 of each year; (b) Millions of bbl.; (c) Trillions of cubic feet; (d) Preliminary.
Source: Energy Information Administration and American Petroleum Institute.



State Motor Fuel Tax Collections

State	State Gasoline tax rates per gal. in 1989	Total State motor fuel tax revenues ^(a) (Add 000)			State	State Gasoline tax rates per gal. in 1988	Total State motor fuel tax revenue ^(a) (Add 000)		
	1989	1988	% Change	1989		1988	% Change		
Alabama	13¢	\$354,464	\$336,984	5.2%	New Jersey	10.5	393,447	384,258	2.4
Alaska	8	20,183	21,150	-4.6	New Mexico	14	141,826	133,626	6.1
Arizona	17	326,999	327,431	-0.1	New York	8	538,875	525,292	2.6
Arkansas	13.5	206,573	203,584	1.5	North Carolina	15.7	742,781	624,294	19.0
California	9	1,312,492	1,278,694	2.6	North Dakota	17	72,541	72,399	7.8
Colorado	18	305,573	305,180	0.1	Ohio	14.8	859,992	796,873	-0.3
Connecticut	20	298,734	300,658	-0.6	Oklahoma	16	308,569	309,392	16.2
Delaware	16	62,832	62,087	1.2	Oregon	14	222,545	191,554	-0.1
Dist. of Col.	15.5	30,399	28,090	8.2	Pennsylvania ...	12	1,003,267	1,003,792	15.2
Florida	9.7	660,339	655,120	0.8	Rhode Island	15	76,804	66,644	15.2
Georgia	7.5	333,698	324,572	2.8	South Carolina ..	15	299,922	289,681	3.5
Hawaii	11	43,661	41,650	4.8	South Dakota ...	18	72,072	72,172	-0.1
Idaho	18	91,302	88,114	3.6	Tennessee	17	607,043	505,565	20.1
Illinois	13	772,840	720,829	7.2	Texas	15	1,482,404	1,464,164	1.2
Indiana	15	540,339	536,572	0.7	Utah	19	154,870	159,554	-2.9
Iowa	18	332,033	291,778	13.8	Vermont	13	47,153	43,524	8.3
Kansas	11	195,367	168,231	16.1	Virginia	17.5	616,996	597,321	3.3
Kentucky	15	347,367	339,014	2.5	Washington	18	460,900	440,831	4.6
Louisiana	16	380,526	375,336	1.4	West Virginia	10.5	147,986	111,192	33.1
Maine	16	117,008	111,571	4.9	Wisconsin	20.9	504,711	509,196	-0.9
Maryland	18.5	466,479	455,711	2.4	Wyoming	8	37,983	37,372	1.6
Massachusetts ..	11	307,488	314,387	-2.2	Total U.S.	13.42	18,557,158	17,825,645	4.1
Michigan	15	689,622	686,667	0.4	& change from prior year	5.3%	4.1%	8.2%	-
Minnesota	20	436,624	424,873	2.8	(a) Estimated for 1989. Both 1989 and 1988 totals include some miscellaneous "other receipts," however. These are smallish amounts. The bulk of the taxes herein are for gasoline. The totals do NOT include diesel fuel or LPG taxes.				
Mississippi	17	275,633	262,236	5.1	Source: Federal Highway Administration, Table SS88-2, published October 1989.				
Missouri	11	349,597	346,383	0.9					
Montana	20	100,988	102,613	-1.6					
Nebraska	18.3	187,788	184,138	2.0					
Nevada	18	132,522	127,584	3.9					
New Hampshire ..	14	86,001	85,774	0.3					

(a) Estimated for 1989. Both 1989 and 1988 totals include some miscellaneous "other receipts," however. These are smallish amounts. The bulk of the taxes herein are for gasoline. The totals do NOT include diesel fuel or LPG taxes.

Source: Federal Highway Administration, Table SS88-2, published October 1989.

State and Federal Gasoline Taxes—1989

(\$ per gal.)

State(a)	State gasoline tax rate	State gasohol tax rate	State diesel tax rate	State sales or special taxes**	State+9.0¢ Federal tax
Alabama	13.0	13.0	14.0	-	22.0
Alaska	8.0	0.0	8.0	-	17.0
Arizona	17.0	17.0	17.0	-	26.0
Arkansas	13.5	13.5	12.5	-	22.5
California	9.0	9.0	9.0	yes	18.0
Colorado	20.0	20.0	18.0	-	29.0
Connecticut	20.0	19.0	20.0	yes	29.0
Delaware	16.0	16.0	16.0	-	25.0
D.C.	18.0	18.0	18.0	-	27.0
*Florida	9.7	9.7	9.7	-	18.7
Georgia	7.5	7.5	7.5	yes	16.5
Hawaii	11.0	11.0	11.0	yes	20.0
Idaho	18.0	14.0	18.0	-	27.0
Illinois	19.0	16.0	22.5	yes	28.0
Indiana	15.0	15.0	16.0	yes	24.0
Iowa	20.0	19.0	22.5	-	29.0
Kansas	15.0	15.0	17.0	-	24.0
*Kentucky	15.0	15.0	12.0	-	24.0
Louisiana	20.0	20.0	20.0	-	29.0
Maine	17.0	17.0	20.0	-	26.0
Maryland	18.5	18.5	18.5	-	27.5
*Massachusetts	11.0	11.0	11.0	-	20.0
*Michigan	15.0	15.0	15.0	yes	24.0
Minnesota	20.0	18.0	20.0	-	29.0
Mississippi	18.0	18.0	18.0	-	27.0
Missouri	11.0	11.0	11.0	-	20.0
Montana	20.0	20.0	20.0	-	29.0
*Nebraska	22.0	19.0	22.0	-	31.0
Nevada	18.0	18.0	22.0	-	27.0
New Hampshire	14.0	14.0	14.0	-	23.0
New Jersey	10.5	4.5	13.5	-	19.5
New Mexico	16.2	13.2	16.2	-	25.2
New York	8.0	8.0	10.0	yes	17.0
*North Carolina	21.95	21.95	21.95	-	30.95
North Dakota	17.0	13.0	17.0	-	26.0
*Ohio	18.0	18.0	18.0	-	27.0
Oklahoma	16.0	16.0	13.0	-	25.0
Oregon	18.0	18.0	18.0	-	27.0
Pennsylvania	12.0	12.0	12.0	yes	21.0
*Rhode Island	20.0	20.0	20.0	-	29.0
South Carolina	16.0	10.0	16.0	-	25.0
South Dakota	18.0	16.0	18.0	-	27.0
Tennessee	21.0	21.0	17.0	-	30.0
Texas	15.0	15.0	15.0	-	24.0
Utah	19.0	19.0	19.0	-	28.0
Vermont	16.0	16.0	17.0	-	25.0
Virginia	17.7	17.7	16.2	-	26.7
Washington	18.0	16.2	18.0	-	27.0
*West Virginia	20.35	20.35	20.35	-	29.35
*Wisconsin	20.8	20.8	20.8	-	29.8
Wyoming	9.0	5.0	9.0	-	18.0

*Variable tax expressed in cents/gal.

**California: 8.25% sales tax; Connecticut: 3% oil company gross receipts tax; Georgia: 4% tax on retail price; Hawaii: 4% sales tax; Illinois: 6% sales tax; Indiana: 5% sales tax; Michigan: 4% sales tax; New York: 4% sales tax and 2.75% of gross receipts from sale of petroleum products; Pennsylvania: 6% franchise tax on gross receipts.

Source: National Highway Users Federation, as of 12/31/1989.

Net Gasoline Revenues by States (a)

(Thousands of Dollars)

State	1989	1988	1987	1986	1985	State + 9.0¢ Federal Tax on gasoline (a)
Alabama	\$288,895	\$273,375	\$269,040	\$252,869	\$245,035	22.0¢
Alaska	19,979	20,986	19,360	21,258	24,144	17.0
Arizona	323,014	323,549	314,240	294,210	229,543	26.0
Arkansas	206,573	203,548	198,430	197,101	169,804	22.5
California	1,309,012	1,275,415	1,258,470	1,200,981	1,140,251	18.0
Colorado	305,494	305,102	253,050	244,666	185,088	27.0
Connecticut	294,551	296,633	282,780	238,322	212,053	29.0
Delaware	62,805	62,064	52,920	41,878	39,552	25.0
Dist. of Col.	30,361	28,053	28,210	25,169	24,753	24.5
Florida	650,960	645,830	631,368	592,452	552,407	18.7
Georgia	330,365	321,118	307,425	293,307	278,403	16.5
Hawaii	43,641	41,632	41,250	39,132	32,609	20.0
Idaho	91,237	88,053	79,895	77,252	78,086	27.0
Illinois	772,840	720,879	726,510	672,139	639,106	22.0
Indiana	539,209	535,443	523,900	512,623	416,034	24.0
Iowa	330,534	290,321	259,925	244,149	193,555	27.0
Kansas	195,200	168,069	162,120	153,857	150,421	20.0
Kentucky	346,567	338,240	307,440	239,069	191,457	24.0
Louisiana	379,369	374,220	368,480	341,887	351,109	25.0
Maine	116,948	111,514	103,180	88,333	85,350	25.0
Maryland	452,829	441,989	378,465	309,172	290,548	27.5
Massachusetts	300,428	307,329	296,120	281,257	285,988	20.0
Michigan	674,500	671,559	683,700	648,462	625,063	24.0
Minnesota	435,378	423,688	359,380	341,399	340,704	29.0
Mississippi	259,678	246,381	174,640	136,846	129,522	26.0
Missouri	348,178	344,478	297,440	215,445	208,208	20.0
Montana	100,657	102,292	91,945	80,177	78,966	29.0
Nebraska	187,775	164,125	163,472	152,691	129,180	27.3
Nevada	132,096	127,148	95,700	78,993	71,662	27.0
New Hampshire	79,141	79,025	78,120	71,115	66,231	23.0
New Jersey	393,447	383,697	308,930	349,050	312,791	19.5
New Mexico	141,826	113,626	127,025	103,709	98,149	23.0
New York	538,875	525,277	526,320	499,707	491,730	17.0
North Carolina	742,781	607,505	572,260	488,511	405,450	24.7
North Dakota	72,541	68,268	56,940	48,648	52,242	26.0
Ohio	858,992	796,873	745,690	604,960	549,637	23.8
Oklahoma	308,569	308,751	210,200	202,212	194,567	25.0
Oregon	222,545	191,312	151,800	141,149	125,967	23.0
Pennsylvania	1,003,267	997,123	393,160	920,233	892,469	21.0
Rhode Island	76,804	66,644	63,450	55,315	48,403	24.0
South Carolina	292,922	283,115	264,880	254,450	247,003	24.0
South Dakota	77,072	70,973	57,330	51,921	51,406	27.0
Tennessee	607,043	469,316	467,880	391,857	294,541	26.0
Texas	1,482,404	1,464,164	1,463,400	1,002,272	990,886	24.0
Utah	154,870	158,724	157,886	113,435	112,265	28.0
Vermont	47,153	43,524	39,660	39,004	37,949	22.0
Virginia	616,996	597,001	572,090	441,740	400,424	26.5
Washington	460,900	440,800	430,200	406,527	399,635	27.0
West Virginia	147,986	111,192	93,975	102,883	100,947	19.5
Wisconsin	504,711	509,196	440,181	403,094	374,029	29.9
Wyoming	37,983	37,785	31,680	35,319	34,278	17.0
Total U.S.	\$18,557,158	\$17,597,180	\$16,527,912	\$14,742,487	\$13,683,250	22.42¢
% Change vs. Preceding Period	5.5%	6.5%	12.1%	7.7%	-	5.3%

(a) Does not include sales and special taxes levied in some states and municipal areas; does not include "other receipts" from gasoline sales.
Source: Federal Highway Administration, Table SS88-2, published October 1989; data for 1989 are estimates.

Auto, Truck and Farm Tire Shipments

	Type of Tire (Add 000)							
	Passenger	% of Market	Bus/Truck	% of Market	Farm Equipment	% of Market	Total of Market Type	% of Total
1989								
Original Equipment	51,170	84.9%	8,177	4.3%	890	1.5%	60,237	22.5%
Replacement	153,281	80.1	35,436	18.5	2,664	1.3	191,381	71.4
Export	12,437	76.5	3,548	21.8	270	1.7	16,255	6.1
Total	216,888	81.0	47,161	17.6	3,824	1.4	267,873	—
1988								
Original Equipment	54,131	84.6%	8,801	13.8%	753	1.2%	61,253	23.7%
Replacement	155,292	80.9	33,918	17.7	2,662	1.4	189,064	73.1
Export	9,365	72.4	3,301	25.5	267	2.1	8,282	3.2
Total	218,788	81.5	46,020	17.1	3,682	1.4	258,699	—

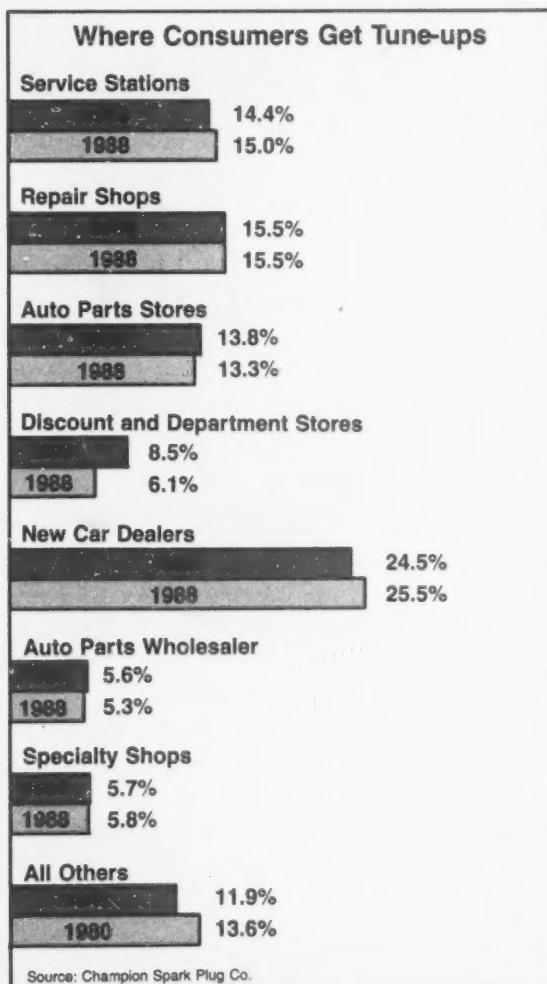
Source: Rubber Manufacturers Assn., Monthly Statistical Report, December 1989.

Exports Bail Out '89 Tire Market

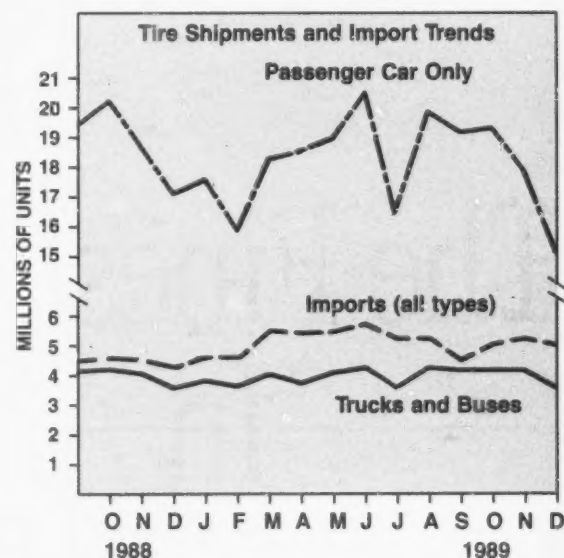
Exports saved the tire industry from a negative fiasco in 1989, Rubber Manufacturers Assn. says. Overall, passenger car shipments were flat while bus, truck and farm shipments were up slightly. Exports were up a rousing 96.3%. Original equipment and replacement shipments for passenger cars lagged badly.

	Passenger	Bus/Truck	Farm Equipment	Total by Type of Market
'89 vs. '88				
Original equipment	(5.8%)	7.6%	18.2%	(1.7%)
Replacement	(1.2)	4.4	—	1.2
Export	32.8	7.5	1.1	96.3
Total	(0.1)	2.5	3.9	3.5

Source: Rubber Manufacturers Assn., Monthly Statistical Report.



N.B. Because the questionnaires were revised and the categories were changed in 1988, the data in this chart are not comparable to prior Factbook issues.



1989 Ethylene Glycol-Base Antifreeze Sales

	(Add 000 gal.)	
	Civilian	Government
Packaged ethylene glycol antifreeze sold in quart and gallon sizes	90,892,867	—
in drums	6,177,536	—
Total	97,070,403	—
Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to packagers	44,889,753	252,300
Bulk ethylene glycol antifreeze (or ethylene glycol for antifreeze) sold to motor vehicle manufacturers for "drive-away" or factory fill use	18,385,632	—
Total	160,345,788	—
Grand total (civ. and gov't.)	160,598,088	

Source: Chemical Specialty Mfrs. Assn.

Replacement Batteries Up in 1989

(Add 000)

Battery shipments (replacement and original equipment) edged down slightly in 1989 from the record high of 74.7-million units in 1988. The slight decline in the total was a result of a drop in original equipment shipments from 11.2-million in 1988 to 9.9-million in 1989. However, replacement battery shipments were up 1.4% over 1988 to a record new total of 64.4-million units. Replacement batteries had almost 87% of the total domestic market last year. This was the best market share for replacements since 1982.

Year	Replacements	% of Market	New cars & trucks	% of Market	Total market	% Change from previous year
1989	64,433	86.6%	9,933	13.4%	74,366	-0.4
1988	63,487	85.0	11,190	15.0	74,677	5.5
1987	59,878	84.6	10,910	15.4	70,788	-1.1
1986	60,306	84.2	11,335	15.8	71,641	+1.8
1985	58,684	83.4	11,649	16.6	70,333	—
1984	59,333	84.5	10,925	15.5	70,258	5.0
1983	56,105	83.8	10,823	16.2	66,928	7.9
1982	54,214	87.4	7,819	12.6	62,033	0.8
1981	53,598	87.1	7,956	12.9	61,554	6.0
1980	50,063	86.2	8,009	13.8	58,072	-11.0
1979	53,746	82.4	11,480	17.6	65,226	-6.2
1977	54,601	81.2	12,639	18.8	67,240	10.8
1975	42,582	82.5	8,985	17.6	51,567	-5.3

Source: Replacement battery figures supplied by Battery Council International. New cars and trucks are U.S. factory sales figures provided by Motor Vehicle Manufacturers Assn.

Replacement Batteries

Replacement battery shipments totaled 64.4-million units in 1989, with 12-volt and 6-volt accounting for 87% of the total, according to Battery Council International. Here are the highlights of its annual report.

Replacement Batteries:

Passenger cars and light trucks:

12-volt: 50,370,366, or 78.3% of the total; 6-volt: 742,498, or 1.2% of the total.

Heavy duty commercial:

12-volt: 3,842,624, or 6.0% of the total; 6-volt: 1,041,517, or 1.6% of the total.

Original Equipment:

Passenger cars and light trucks:

12-volt: 11,086,684, or 82.0% of the total; 6-volt: 5,759, or 0.004% of the total.

Heavy duty commercial:

12-volt: 852,711 or 6.3% of the total; 6-volt: 29,865 or 0.1% of the total.

Car Lubrication Service

1990 Crankcase Drain Intervals and Recommended Oil

Make	Model	Normal Service		Severe Service		Type Of Oil
		Miles	Months	Miles	Months	
Eagle	Premier	7,500	7.5	3,000	3	SG
	Summit	7,500	12	3,000	3	SG/CD
Talon	w/Turbo	5,000	6	3,000	3	SG
						SF/CC
	Others	7,500	12	3,000	3	SG
Chrysler Corp.	Turbo	7,500(a)	6(a)	3,000	3	SG
	Others	7,500	12	5,000	6	SG/CD
Ford Motor Co.	Supercharged	5,000	6	3,000	3	SG
	Others	7,500	6	3,000	3	
General Motors	Turbo	3,000	3	3,000	3	SG
	Others	7,500	12	3,000	3	SG

(a) Change oil every 3,000 miles or 3 months if SG/CD oil is not used.

Source: Chek-Chart Publications, Simon & Schuster Inc.

1990 Automatic Transmission/Transaxle Drain Intervals and Recommended Fluids

Make	Fluid	Normal Service		Severe Service	
		Months	Miles	Months	Miles
Eagle	(a)	30	30,000	—	15,000(b)
Chrysler Corp.	Mopar ATF-Plus*	—	—	—	15,000
Ford Motor Co.	MERCON*	—	—	—	30,000
General Motors	Dexron®-II	—	100,000	—	15,000

(a) Premier MERCON*; others, Mopar ATF-Plus*

(b) Premier only

1990 Chassis Lubrication Intervals (Models with fittings)

Make	Normal Service		Severe Service		Type	Part or Specification No.
	Months	Miles	Months	Miles		
Eagle	—	—	—	—	—	—
Chrysler Corp.	36	30,000	18	15,000	#2 Barium EP	4318063
Ford Motor Co.	—	15,000	—	—	#2 Lithium EP with polyethylene 8-molybdenum disulfide	M1C75-B
General Motors	12	7,500	6	6,000	#1-2 Multipurpose EP	1050679

Source: Chek-Chart Publications, Simon & Schuster Inc.

U.S. Refineries and Capacities by Companies

(In descending order as of Jan. 1, 1989)

Important note: This listing includes capacity that is operational and capacity that is idle or shut down. In the latter case, this capacity can be restored to normal within 90 days. The Energy Information Administration says there were 204 operable refineries on Jan. 1, 1989, compared with a total of 213 the preceding year. The crude distillation capacity was 15.7-million b/d, compared with the year ago figure of 15.9-million b/d. For earlier data, see 1989 NPN Factbook.

Companies with a capacity of more than 100,000 b/d. Number of companies: 31; Total capacity: 13,625,940 b/d.

Company b/d

Chevron U.S.A. Inc.	
El Segundo, Calif.	330,000
Port Arthur, Texas	329,900
Pascagoula, Miss.	295,000
Richmond, Calif.	270,000
Philadelphia, Pa.	175,000
Perth Amboy, N.J.	80,000
El Paso, Texas	66,000
Honolulu, Hawaii	48,000
Salt Lake City, Utah	45,000
Kenai, Alaska	22,000
Total	1,660,000

Exxon Co. U.S.A.	
Baytown, Texas	493,000
Baton Rouge, La.	455,000
Linden, N.J.	130,000
Benicia, Calif.	128,000
Billings, Mont.	42,000
Total	1,248,000

Shell Oil Co.	
Wood River, Ill.	274,000
Deer Park, Texas	215,900
Norco, La.	215,000
Martinez, Calif.	140,100
Carson, Calif.	125,000
Anacortes, Wash.	84,000
Odessa, Texas	28,600
Total	1,082,600

Amoco Oil Co.	
Texas City, Texas	420,000
Whiting, Ind.	350,000
Mandan, N.D.	58,000
Yorktown, Va.	51,000
Salt Lake City, Utah	40,000
Casper, Wyo.	40,000
Savannah, Ga.	28,000
Total	987,000

Mobil Oil Corp.	
Beaumont, Texas	275,000
Joliet, Ill.	180,000
Chalmette, La. ⁽¹⁾	145,000
Torrance, Calif.	123,000
Paulsboro, N.J.	100,000
Total	823,000

BP America Inc.	
BP Oil Corp.	
Belle Chasse, La. ⁽²⁾	213,640
Marcus Hook, Pa.	172,000
Lima, Ohio ⁽²⁾	167,500
Toledo, Ohio ⁽²⁾	126,100
Ferndale, Wash. ⁽³⁾	77,400
Total	756,640

Atlantic Richfield Co.	
Arco Products Co.	
Los Angeles, Calif.	214,000
Ferndale, Wash.	163,000
Lyondell Petrochemical Co.	
Houston, Texas	285,000
Arco Alaska Inc.	
Anchorage, Alaska	12,000
Prudhoe Bay, Alaska	12,000
Total	686,000

Star Enterprise⁽⁴⁾	
Port Arthur/Port Neches, Texas	250,000
Convent, La.	225,000
Delaware City, Del.	140,000
Total	615,000

U.S. Steel Corp.	
Marathon Petroleum Co.	
Garyville, La.	255,000
Robinson, Ill.	160,000
Texas City, Texas	69,500
Detroit, Mich.	68,500
Total	553,000

Unocal Corp.	
Lemont, Ill.	147,000
Nederland, Texas	120,000
Wilmington, Calif.	108,000
Rodeo, Calif.	71,900
Arroyo Grande, Calif.	41,000
Total	487,900

E I Du Pont De Nemours & Co.	
Conoco Inc.	
Westlake, La.	156,500
Ponca City, Okla.	136,000
Billings, Mont.	48,500
Commerce City, Colo.	44,000
Santa Maria, Calif.	9,500
Egan, La.	2,800
Total	397,300

Sun Co Inc.	
Marcus Hook, Pa.	170,000
Toledo, Ohio	125,000
Tulsa, Okla.	85,000
Total	380,000

Ashland Oil Inc.	
Catlettsburg, Ky.	213,400
St. Paul, Minn.	67,100
Canton, Ohio	66,000
Total	346,500

Citgo Petroleum Corp./Petroleos De Venezuela	
Citgo Petroleum Corp.	
Lake Charles, La.	305,000

Koch Industries Inc.	
Koch Refining Co.	
St. Paul, Minn.	180,000
Corpus Christi, Texas	125,000
Total	305,000

Phillips 66 Co.	
Sweeny, Texas	175,000
Borger, Texas	105,000
Woods Cross, Utah	25,000
Total	305,000

Trans America Refining Co.	
Good Hope, La.	300,000

Texaco Refining & Marketing Inc.	
Anacortes, Wash.	97,000
El Dorado, Kan.	78,000
Wilmington, Calif.	57,000
Bakersfield, Calif.	47,000
Total	279,000

Solomon Inc.	
Hill Petroleum Co.	
Texas City, Texas ⁽⁵⁾	119,600
Houston, Texas	65,000
Krotz Springs, La.	57,500
St. Rose, La.	34,000
Total	276,100

Coastal Corp., The	
Coastal Eagle Point Oil Co.	
Westville, N.J.	90,000
Coastal Refining & Marketing Inc.	
Corpus Christi, Texas	90,000
Derby Refining Co.	
El Dorado, Kan.	30,400
Wichita, Kan.	28,800
Belcher Oil Co.	
Chickasaw, Ala.	26,600
Total	265,800

Total Petroleum Inc.	
Ardmore, Okla.	60,500
Arkansas City, Kan.	53,600
Alma, Mich.	42,000
Colorado Refining Co.	
Commerce City, Colo.	28,000
Total	184,100

Fina Oil & Chemical Co.	
Port Arthur, Texas	110,000
Big Springs, Texas	55,000
Total	165,000

Diamond Shamrock Refining & Marketing Co.	
Sunray, Texas	105,000
Three Rivers, Texas	51,000
Total	156,000

Kerr-McGee Corp.	
Southwestern Refining Co. Inc.	
Corpus Christi, Texas	104,000
Kerr-McGee Refining Corp.	
Wynnewood, Okla.	43,000
Cotton Valley, La.	7,800
Total	154,800

Company	b/d	Company	b/d	Company	b/d
Mapco Petroleum Inc.		Pauley Petroleum Inc.		Petroserve Ltd.	
North Pole, Alaska	90,000	Fletcher Oil & Refining Co.		Trifinery	
Memphis, Tenn.	58,000	Carson, Calif.	29,500	Corpus Christi, Texas	27,000
Total	148,000	Newhall Refining Co. Inc.		El Paso Refining Co. Ltd.	
Petroleos De Venezuela		Newhall, Calif.	22,500	El Paso, Texas	25,500
Champlin Refining Co.		Total	52,000	Crysen Corp.	
Corpus Christi, Texas	130,000	Rock Island Refining Corp.		Crysen Refining Inc.	
Horsham Corp.⁽⁶⁾		Indianapolis, Ind.	49,000	Woods Cross, Utah	12,500
Clark Oil & Refining Corp.		Lion Oil Co.		Sound Refining Inc.	
Blue Island, Ill.	64,600	El Dorado, Ark.	48,000	Tacoma, Wash.	11,900
Hartford, Ill.	63,600	Paramount Acquisition Corp.		Total	24,400
Total	128,200	Paramount Petroleum Corp.		San Joaquin Refining Co. Inc.	
Tosco Corp.		Paramount, Calif.	46,500	Bakersfield, Calif.	24,300
Martinez, Calif.	126,000	Placid Oil Co.		Flying J Petroleum Inc.	
Sinclair Oil Corp.		Placid Refining Co.		Big West Oil Co.	
Sinclair, Wyo.	54,000	Port Allen, La.	46,000	North Salt Lake, Utah	24,000
Tulsa, Okla.	47,000	Texas Eastern Corp.		Kern Oil & Refining Co.	
Little America Refining Co.		La Gloria Oil & Gas Co.		Bakersfield, Calif.	21,400
Evansville, Wyo.	24,500	Tyler, Texas	46,000	Indiana Farm Bureau Cooperative Assn.	
Total	125,500	Pride Refining Inc.		Mount Vernon, Ind.	21,200
Atlantic Refining & Marketing Corp.		Abilene, Texas	42,750	Leal Petroleum Corp.	
Philadelphia, Pa.	125,000	Thrifty Oil Co.		Nixon, Texas	20,900
Murphy Oil U.S.A. Inc.		Golden West Refining Co.		Ergon Inc.	
Meraux, La.	92,500	Santa Fe Springs, Calif.	42,000	Ergon Refining Inc.	
Superior, Wis.	32,000	Cirillo Brothers Oil Co.		Vicksburg, Miss.	20,600
Total	124,500	Cibro Petroleum Products Inc.		Valero Refining Co.	
Companies with capacity of 30,001 to 100,000 b/d. Number of companies: 27; Total capacity: 1,457,920 b/d.		Albany, New York	41,850	Corpus Christi, Texas	20,000
Crown Central Petroleum Corp.		Sulfur Mountain Corp.⁽⁸⁾		Quaker State Oil Refining Corp.	
Pasadena, Texas	100,000	Edgington Oil Co.		Newell, W.Va.	12,150
Farmland Industries Inc.		Long Beach, Calif.	41,600	Smethport, Pa.	6,700
Coffeyville, Kan.	56,500	Cenex		Total	18,850
Phillipsburg, Kan.	26,400	Laurel, Mont.	41,450	Giant Refining Co.	
Total	82,900	Holly Corp.		Gallup, N.M.	18,000
LL&E Petroleum Marketing Inc.		Navajo Refining Co.		VGS Corp.	
Saraland, Ala.	80,000	Artesia, N.M.	34,700	Southland Oil Co.	
Pacific Resources Inc.		Montana Refining Co.		Sandersville, Miss.	11,000
Hawaiian Independent Refinery Inc.		Great Falls, Mont.	6,500	Lumberton, Miss.	5,800
Ewa Beach, Hawaii	78,500	Total	41,200	Total	16,800
National Cooperative Refinery Assn.		Frontier Refining Co.		Chemoli Refining Corp.⁽¹²⁾	
McPherson, Kan.	75,600	Cheyenne, Wyo.	38,670	Long Beach, Calif.	14,200
Tesoro Petroleum Corp.		Sargent Holdings Ltd.		Huntway Refining Co.	
Kenai, Alaska	72,000	Powerline Oil Co.		Benicia, Calif.	8,600
Pennzoil Products Co.		Santa Fe Springs, Calif.	35,000	Wilmington, Calif.	5,500
Shreveport, La.	46,200	Hunt Oil Co.		Total	14,100
Rouseville, Pa.	15,700	Tuscaloosa, Ala.	33,500	Calcasieu Refining Co.	
Roosevelt, Utah	8,000	Gary Energy Corp.		Lake Charles, La.	13,500
Total	69,900	Bloomfield Refining Co.		Wyoming Refining Co.	
United Refining Inc.⁽⁷⁾		Bloomfield, N.M.	16,800	Newcastle, Wyo.	12,555
United Refining Co.		Western Slope Refining Co.⁽¹⁰⁾		World Oil Co.	
Warren, Pa.	60,000	Fruita, Colo.	15,200	Sunland Refining Corp.	
Vulcan Refining Co.		Time Oil Co.		Bakersfield, Calif.	12,000
Cordova, Ala.	9,500	U.S. Oil & Refining Co.		Companies with capacity 10,000 b/d or less. Number of companies: 29; Total capacity: 164,709 b/d.	
Total	69,500	Tacoma, Wash.	32,000	Barrett Refining Corp.	
American Ultramar Ltd.		Companies with capacity 10,001 to 30,000 b/d. Number of companies: 20; Total capacity: 406,305 b/d.		Thomas, Okla.	10,000
Ultramar Refining⁽⁷⁾		Amerade Hess Corp.		City Gas & Transmission Corp.	
Wilmington, Calif.	65,000	Purvis, Miss.	30,000	Wilmington, N.C.	10,000
Coastal Corp./Sinochem		American International Petroleum Corp.			
Pacific Refining Co.		American International Refinery Inc.⁽¹¹⁾			
Hercules, Calif.	55,000	Lake Charles, La.	27,000		

Company	b/d
Endevco Inc. ⁽¹²⁾	
Dubach, La.	10,000
Wilco Corp.	
Bradford, Pa.	9,915
Gibson Oil & Refining Co. Inc.	
Bakersfield, Calif.	9,600
Asphalt Materials ⁽¹⁴⁾	
Laketon Refining Corp.	
Laketon, Ind.	8,700

Company	b/d
Lunday Thagard Co.	
South Gate, Calif.	8,100
Anchor Gasoline Corp.	
Canal Refining Co.	
Church Point, La.	8,000
Cialborne Gasoline Co.	
Lisbon, La.	7,500
Petro Star	
North Pole, Alaska	7,000

Company	b/d
Moore & Munger Marketing & Refining Inc.	
Cross Oil & Refining Co. of Arkansas	
Smackover, Ark.	6,700
Thriftyway Co.	
Bloomfield, N.M.	6,100
Transcontinental Energy Corp.	
Petro Source Resources Inc. ⁽⁵⁾	
Vicksburg, Miss.	6,000
Somerset Refinery Inc.	
Somerset, Ky.	5,500
Young Refining Corp.	
Douglasville, Ga.	5,079
Donna Refinery Partners Ltd.	
Donna, Texas	4,750
Mid Atlantic Fuels Inc.	
St Mary's, W.Va.	4,658
Howell Hydrocarbons Corp.	
San Antonio, Texas	4,500
Nevada Refining Co.	
Tonopah, Nev.	4,500
Calumet Refining Co.	
Princeton, La.	4,207
Oil Holding Inc.	
Tenby Inc. ⁽¹³⁾	
Oxnard, Calif.	4,000
Warrior Asphalt Refining Corp.	
Holt, Ala.	4,000
Martin Gas Sales Inc.	
Berry Petroleum Co.	
Stephens, Ark.	3,700
Primary Oil & Energy Corp.	
Chester, Va.	3,700
B-T Energy Corp.	
GNC Energy Corp.	
Greensboro, N.C.	3,000
Crystal Refining Co.	
Carson City, Mich.	3,000
Kentucky Oil & Refining Co.	
Troy, Ind.	1,500
Petrolite Corp.	
Kilgore, Texas	1,000

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*Patent
Pending

Footnotes:

- (1) Formerly Tenneco Oil Co.
- (2) Formerly Standard Oil Co.
- (3) Formerly Mobil Oil Co.
- (4) Formerly Texaco Refining & Marketing Inc.
- (5) Formerly Texas City Refining Inc.
- (6) Formerly Apex Oil Co.
- (7) Formerly Coral Petroleum Co.
- (8) Formerly Union Pacific Resources Co.
- (9) Formerly Triad Terminal Corp.
- (10) Formerly Gary Energy Corp.
- (11) Formerly Lake Charles Refining Co.
- (12) Formerly Macmillan Petroleum Co.
- (13) Formerly Kerr-McGee Refining Corp.
- (14) Formerly Young Refining Corp.
- (15) Formerly Oxnard Refinery

*Refinery was reactivated Jan. 1, 1989.

Lubrication Oil and Wax Capacities of U.S. Refineries

(All capacities in 000 b/d) as of Jan. 1, 1989

Company	Location	Crude Capacity	Finished Lube Capacity				Wax Capacity		
			A	B	C	D	Total	E	F
Amoco Oil Co.	Caspar, Wyo.	40.0	1.5				1.5		0.3
Amoco Oil Co.	Whiting, Ind.	350.0	6.2				6.2	0.6	
Ashland Oil, Inc.	Catlettsburg, Ky.	205.0	8.0				8.0		2.8
BP America	Lima, Ohio	178.0	2.4				2.4		0.6
Calumet Refining Co.	Burnham, Ill.					0.6	0.6		
Calumet Refining Co.	Princeton, La.	4.4					3.2		
Chevron U.S.A. Inc.	Port Arthur, Tex.	329.0	6.6	0.1		0.1	9.7		3.8
Chevron U.S.A. Inc.	Richmond, Calif.	270.0					9.4	1.2	1.0
Cit-Con Oil Corp.	Lake Charles, La.		9.1				9.1	1.0	0.8
Conoco Inc.	Ponca City, Okla.	137.4	2.3				2.3	0.3	0.5
Cross Oil and Refining Co., Inc.	Smackover, Ark.	7.0					4.0		
Diamond Shamrock	Three Rivers, Tex.	45.0					1.4		
Ergon, Inc. (Lion Oil Co. Affiliate)	El Dorado, Ark.	50.0							
Ergon Refining, Inc.	Vicksburg, Miss.	17.0					3.0		
Exxon Co., U.S.A.	Baton Rouge, La.	421.0	16.0	0.5			16.5	1.7	
Exxon Co., U.S.A.	Baytown, Tex.	426.0	18.0		9.0		31.2		2.0
Lyondell Petrochemical Co.	Houston, Tex.	260.0					7.0		0.4
Mobil Oil Corp.	Beaumont, Tex.	275.0	8.9				8.9	1.6	0.3
Mobil Oil Corp.	Paulsboro, N.J.	100.0	7.5				7.5		
Pennzoil Co.	Rouseville, Pa.	15.7					4.4	0.6	0.4
Pennzoil Co./Atlas Processing Co.	Shreveport, La.	46.2	4.5				8.6	0.8	
Petrolite Corp.	Barnsdall, Okla.							0.4	
Petrolite Corp., Bareco Div.	Kilgore, Tex.	1.0							0.3
Quaker State Oil Ref. Corp.	Emlenton, Pa.							0.7	
Quaker State Oil Ref. Corp.	Bradford, Pa.	6.5	1.7				1.7	0.4	0.5
Quaker State Oil Ref. Corp.	Newell, W.V.	10.5					3.6		0.5
San Joaquin Refining Co., Inc.	Bakersfield, Calif.	21.0			2.4	0.5	2.9		
Shell Oil Co.	Deer Park, Tex.	215.9	4.5				9.5	1.0	
Shell Oil Co.	Martinez, Calif.	140.1			4.0		4.0		
Shell Oil Co.	Wood River, Ill.	274.0	4.0				4.0		
Star Enterprises (Formerly Texaco U.S.A.)	Port Arthur, Tex.	250.0	16.0		1.0		17.0		1.8
Sun Company, Inc.	Marcus Hook, Pa.	170.0				4.0	10.0		
Sun Company, Inc.	Tulsa, Okla.	85.0	7.5				7.5	0.8	
Sun Company, Inc.	Yabucoa, Puerto Rico	85.0					8.8		2.1
Unocal	Nederland, Tex.								1.3
Unocal	Rodeo, Calif.	77.0	4.6				4.6	0.7	1.2
Witco Chemical Corp.	Bradford, Pa.	10.0	1.6	0.9			2.5	0.2	
Witco Chemical Corp.	Oildale, Calif.	11.0			2.9	1.5	5.3		
TOTAL:		4533.7	130.9	1.5	19.3	6.7	226.3	12.0	19.4

Canadian Refineries

Esso Petroleum Canada	Sarnia, Ontario	126.0	5.7		0.6		6.3		2.0
Esso Petroleum Canada	Strathcona, Alberta	155.0					2.8		0.7
International Waxes, Ltd.	Agincourt, Ontario							1.0	
Petro-Canada Products	Clarkson, Ontario	41.5					4.9		1.0
Shell Canada, Ltd.	Montreal East, Quebec	28.0	2.7				2.7		1.3
TOTAL:		350.5	8.4		0.6		16.7	1.0	5.0

Definitions: A-Solvent extracted paraffinic lubes; B-Unextracted paraffinic lubes; C-Solvent extracted naphthanic lubes; D-Unextracted unhydrotreated naphthanic lubes; E-Fully refined crude scale and microcrystalline waxes; F-Semi-finished, slack waxes and petrolatums.
Source: National Petroleum Refiners Assn., Lubricating Oil and Wax Capacities, 1987.

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Company	b/d	Company	b/d	Company	b/d
ALABAMA		Gibson Oil & Refining Co. Inc.* Bakersfield	0	DELAWARE	
Belcher Refining Chickasaw	26,600	Golden West Refining Co. Santa Fe Springs	42,000	Star Enterprise (Formerly Texaco Refining & Marketing Inc.) Delaware City	140,000
Hunt Oil Co. Tuscaloosa	33,500	Huntway Refining Co. Benicia	8,600	Total	140,000
LL&E Petroleum Marketing Saraland	80,000	Wilmington	5,500		
Vulcan Refining Co. Cordova	0	Kern Oil & Refining Co. Bakersfield	21,400	GEORGIA	
Warrior Asphalt Refining Corp. Holt	4,000	Lunday Thagard Co. South Gate	8,100	Amoco Oil Co. Savannah	0
Total	144,100	Mobil Oil Corp. Torrance	123,000	Young Refining Corp. Douglasville	5,079
		Newhall Refining Co. Inc. Newhall	E 13,000	Total	5,079
ALASKA		Pacific Refining Co. Inc. Hercules	55,000		
Arco Alaska Inc. Anchorage	12,000	Paramount Petroleum Corp. Paramount	46,500	HAWAII	
Prudhoe Bay	12,000	Powerline Oil Co. Santa Fe Springs	35,000	Chevron U.S.A. Inc. Honolulu	48,000
Chevron U.S.A. Inc. Kenai	22,000	San Joaquin Refining Co. Inc. Bakersfield	14,300	Hawaiian Independent Refinery Inc. Ewa Beach	78,500
Mapco Petroleum Inc. North Pole	90,000	Shell Oil Co. Carson	125,000	Total	126,500
Petro Star North Pole	7,000	Martinez	140,100		
Tesoro Petroleum Corp. Kenai	72,000	Sunland Refining Corp. Bakersfield	12,000	ILLINOIS	
Total	215,000	Tenby Inc. (Formerly Oxnard Refinery) Oxnard	4,000	Clark Oil & Refining Corp. Blue Island	64,600
		Texaco Refining & Marketing Inc. Bakersfield	47,000	Hartford	63,600
ARKANSAS		Wilmington	57,000	Marathon Petroleum Co. Robinson	160,000
Berry Petroleum Co. Stephens	3,700	Tosco Corp. Martinez	126,000	Mobil Oil Corp. Joliet	180,000
Cross Oil & Refining Co. of Arkansas Smackover	6,700	Ultramar Refining (Formerly Union Pacific Resources Co.) Wilmington	65,000	Shell Oil Co. Wood River	274,000
Lion Oil Co. El Dorado	41,000	Unocal Corp. Arroyo Grande	41,000	Unocal Corp. Lemont	147,000
Total	51,400	Rodeo	71,900	Total	889,200
		Wilmington	108,000		
CALIFORNIA		Witco Corp. Oildale	0	INDIANA	
Arco Products Co. Los Angeles	214,000	Total	2,206,200	Amoco Oil Co. Whiting	350,000
Chemoli Refining Corp. (Formerly Macmillan Petroleum Co.) Long Beach	14,200			Indiana Farm Bureau Cooperative Assn. Mount Vernon	21,200
Chevron U.S.A. Inc. El Segundo	330,000	COLORADO		Kentucky Oil & Refining Co. Troy	0
Richmond	270,000	Colorado Refining Co. Commerce City	28,000	Laketon Refining Corp. Laketon	8,700
Conoco Inc. Santa Maria	9,500	Conoco Inc. Commerce City	44,000	Rock Island Refining Corp. Indianapolis	49,000
Edgington Oil Co. Inc. Long Beach	41,600	Western Slope Refining Co.* (Formerly Gary Energy Corp.) Fruita	0	Total	428,900
Exxon Co.U.S.A. Benicia	128,000	Total	72,000		
Fletcher Oil & Refining Co. Carson	29,500				

Company	b/d	Company	b/d	Company	b/d
KANSAS		Trans America Refining Co.*		Seaview Petroleum Inc.	
Derby Refining Co.		Good Hope	0	Paulsboro	0
El Dorado	30,400	Total	2,286,147	Total	400,000
Wichita	28,800				
Derby Refining Co.		MICHIGAN		NEW MEXICO	
(Formerly Augusta Refining Co.)		Crystal Refining Co.		Bloomfield Refining Co.	
Augusta	0	Carson City	3,000	Bloomfield	16,800
Farmland Industries Inc.		Marathon Petroleum Co.		Giant Refining Co.	
Coffeyville	56,500	Detroit	68,500	Gallup	18,000
Phillipsburg	26,400	Total Petroleum Inc.		Navajo Refining Co.	
National Cooperative Refinery Assn.		Alma	42,000	Artesia	34,700
McPherson	75,600	Total	113,500	Thriftyway Co.	
Texaco Refining & Marketing Inc.				Bloomfield	6,100
El Dorado	78,000			Total	75,600
Total Petroleum Inc.		MINNESOTA			
Arkansas City	53,600	Ashland Oil Inc.		NEW YORK	
Total	349,300	St. Paul	67,100	Cibro Petroleum Products Inc.	
KENTUCKY		Koch Refining Co.		Albany	41,850
Ashland Oil Inc.		St. Paul	180,000	Total	41,850
Cadetsburg	213,400	Total	247,100		
Somerset Refinery Inc.		MISSISSIPPI		NORTH CAROLINA	
Somerset	5,500	Amerada Hess Corp.		City Gas & Transmission Corp.*	
Total	218,900	Purvis	30,000	Wilmington	0
LOUISIANA		Chevron U.S.A. Inc.		GNC Energy Corp.	
American International Refinery Inc.*		Pascagoula	295,000	Greensboro	3,000
(Formerly Lake Charles Refining Co.)		Ergon Refining Inc.		Total	3,000
Lake Charles	0	Vicksburg	20,600		
BP Oil Corp.		Petro Source Resources Inc.		NORTH DAKOTA	
(Formerly Standard Oil Co.)		Vicksburg	6,000	Amoco Oil Co.	
Belle Chase	213,640	Southland Oil Co.		Maydon	58,000
Calcasieu Refining Co.		Lumberton	5,800	Total	58,000
Lake Charles	13,500	Sandersville	11,000		
Calumet Refining Co.		Total	368,400	OHIO	
Princeton	4,207			Ashland Oil Inc.	
Canal Refining Co.		MONTANA		Canton	66,000
Church Point	8,000	Canex		BP Oil Co.	
Citgo Petroleum Corp.		Laurel	33,650	(Formerly Standard Oil Co.)	
Lake Charles	305,000	Conoco Inc.		Lima	167,500
Claiborne Gasoline Co.		Billings	48,500	Toledo	126,100
Lisbon	7,500	Exxon Co. U.S.A.		Sun Co. Inc.	
Conoco Inc.		Billings	42,000	Toledo	125,000
Egan	2,800	Montana Refining Co.		Total	484,600
Westlake	156,500	Great Falls	6,500		
Endevco Inc.		Total	130,650	OKLAHOMA	
(Formerly Kerr-McGee Refining Corp.)				Barrett Refining Corp.	
Dubach	10,000	NEVADA		Thomas	10,000
Exxon Co. U.S.A.		Nevada Refining Co.		Conoco Inc.	
Baton Rouge	455,000	Tonopah	4,500	Ponca City	136,000
Hill Petroleum Co.		Total	4,500	Kerr-McGee Refining Corp.	
Krotz Springs	57,500	NEW JERSEY		Wynnewood	43,000
St. Rose	34,000	Amerada Hess Corp.		Sinclair Oil Corp.	
Kerr-McGee Refining Corp.		Port Reading	0	Tulsa	47,000
Cotton Valley	7,800	Chevron U.S.A. Inc.		Sun Co. Inc.	
Marathon Petroleum Co.		Perth Amboy	80,000	Tulsa	85,000
Garyville	255,000	Coastal Eagle Point Oil Co.		Total	
Mobil Oil Corp.		Westville	90,000	Ardmore	60,500
(Formerly Tenneco Oil Co.)		Exxon Co. U.S.A.		Total	381,500
Chalmette	145,000	Linden	130,000		
Murphy Oil U.S.A. Inc.		Mobil Oil Corp.		OKLAHOMA	
Meraux	78,500	Paulsboro	100,000	Barrett Refining Corp.	
Pennzoil Products Co.				Thomas	10,000
Shreveport	46,200	NEW MEXICO		Conoco Inc.	
Placid Refining Co.		Crystal Refining Co.		Ponca City	136,000
Port Allen	46,000	Carson City	3,000	Kerr-McGee Refining Corp.	
Shell Oil Co.		Marathon Petroleum Co.		Wynnewood	43,000
Norco	215,000	Detroit	68,500	Sinclair Oil Corp.	
Star Enterprise		Total Petroleum Inc.		Tulsa	47,000
(Formerly Texaco Refining & Marketing Inc.)		Alma	42,000	Sun Co. Inc.	
Convent	225,000	Total	113,500	Tulsa	85,000
		MINNESOTA		Total	
		Ashland Oil Inc.		Ardmore	60,500
		St. Paul	67,100	Total	381,500
		Koch Refining Co.		OKLAHOMA	
		St. Paul	180,000	Barrett Refining Corp.	
		Total	247,100	Thomas	10,000
		MISSISSIPPI		Conoco Inc.	
		Amerada Hess Corp.		Ponca City	136,000
		Purvis	30,000	Kerr-McGee Refining Corp.	
		Chevron U.S.A. Inc.		Wynnewood	43,000
		Pascagoula	295,000	Sinclair Oil Corp.	
		Ergon Refining Inc.		Tulsa	47,000
		Vicksburg	20,600	Sun Co. Inc.	
		Petro Source Resources Inc.		Tulsa	85,000
		Vicksburg	6,000	Total	
		Southland Oil Co.		Ardmore	60,500
		Lumberton	5,800	Total	381,500
		Sandersville	11,000	OKLAHOMA	
		Total	368,400	Barrett Refining Corp.	
		MONTANA		Thomas	10,000
		Canex		Conoco Inc.	
		Laurel	33,650	Ponca City	136,000
		Conoco Inc.		Kerr-McGee Refining Corp.	
		Billings	48,500	Wynnewood	43,000
		Exxon Co. U.S.A.		Sinclair Oil Corp.	
		Billings	42,000	Tulsa	47,000
		Montana Refining Co.		Sun Co. Inc.	
		Great Falls	6,500	Tulsa	85,000
		Total	130,650	Total	
		NEVADA		Ardmore	60,500
		Nevada Refining Co.		Total	381,500
		Tonopah	4,500	OKLAHOMA	
		Total	4,500	Barrett Refining Corp.	
		NEW JERSEY		Thomas	10,000
		Amerada Hess Corp.		Conoco Inc.	
		Port Reading	0	Ponca City	136,000
		Chevron U.S.A. Inc.		Kerr-McGee Refining Corp.	
		Perth Amboy	80,000	Wynnewood	43,000
		Coastal Eagle Point Oil Co.		Sinclair Oil Corp.	
		Westville	90,000	Tulsa	47,000
		Exxon Co. U.S.A.		Sun Co. Inc.	
		Linden	130,000	Tulsa	85,000
		Mobil Oil Corp.		Total	
		Paulsboro	100,000	Ardmore	60,500
		NEW MEXICO		Total	381,500
		Crystal Refining Co.		OKLAHOMA	
		Carson City	3,000	Barrett Refining Corp.	
		Marathon Petroleum Co.		Thomas	10,000
		Detroit	68,500	Conoco Inc.	
		Total Petroleum Inc.		Ponca City	136,000
		Alma	42,000	Kerr-McGee Refining Corp.	
		Total	113,500	Wynnewood	43,000
		MINNESOTA		Sinclair Oil Corp.	
		Ashland Oil Inc.		Tulsa	47,000
		St. Paul	67,100	Sun Co. Inc.	
		Koch Refining Co.		Tulsa	85,000
		St. Paul	180,000	Total	
		Total	247,100	Ardmore	60,500
		MISSISSIPPI		Total	381,500
		Amerada Hess Corp.		OKLAHOMA	
		Purvis	30,000	Barrett Refining Corp.	
		Chevron U.S.A. Inc.		Thomas	10,000
		Pascagoula	295,000	Conoco Inc.	
		Ergon Refining Inc.		Ponca City	136,000
		Vicksburg	20,600	Kerr-McGee Refining Corp.	
		Petro Source Resources Inc.		Wynnewood	43,000
		Vicksburg	6,000	Sinclair Oil Corp.	
		Southland Oil Co.		Tulsa	47,000
		Lumberton	5,800	Sun Co. Inc.	
		Sandersville	11,000	Tulsa	85,000
		Total	368,400	Total	
		MONTANA		Ardmore	60,500
		Canex		Total	381,500
		Laurel	33,650	OKLAHOMA	
		Conoco Inc.		Barrett Refining Corp.	
		Billings	48,500	Thomas	10,000
		Exxon Co. U.S.A.		Conoco Inc.	
		Billings	42,000	Ponca City	136,000
		Montana Refining Co.		Kerr-McGee Refining Corp.	
		Great Falls	6,500	Wynnewood	43,000
		Total	130,650	Sinclair Oil Corp.	
		NEVADA		Tulsa	47,000
		Nevada Refining Co.		Sun Co. Inc.	
		Tonopah	4,500	Tulsa	85,000
		Total	4,500	Total	
		NEW JERSEY		Ardmore	60,500
		Amerada Hess Corp.		Total	381,500
		Port Reading	0	OKLAHOMA	
		Chevron U.S.A. Inc.		Barrett Refining Corp.	
		Perth Amboy	80,000	Thomas	10,000
		Coastal Eagle Point Oil Co.		Conoco Inc.	
		Westville	90,000	Ponca City	136,000
		Exxon Co. U.S.A.		Kerr-McGee Refining Corp.	
		Linden	130,000	Wynnewood	43,000
		Mobil Oil Corp.		Sinclair Oil Corp.	
		Paulsboro	100,000	Tulsa	47,000
		NEW MEXICO		Sun Co. Inc.	
		Crystal Refining Co.		Tulsa	85,000
		Carson City	3,000	Total	
		Marathon Petroleum Co.		Ardmore	60,500
		Detroit	68,500	Total	381,500
		Total Petroleum Inc.		OKLAHOMA	
		Alma	42,000	Barrett Refining Corp.	
		Total	113,500	Thomas	10,000
		MINNESOTA		Conoco Inc.	
		Ashland Oil Inc.		Ponca City	136,000
		St. Paul	67,100	Kerr-McGee Refining Corp.	
		Koch Refining Co.		Wynnewood	43,000
		St. Paul	180,000	Sinclair Oil Corp.	
		Total	247,100	Tulsa	47,000
		MISSISSIPPI		Sun Co. Inc.	
		Amerada Hess Corp.		Tulsa	85,000
		Purvis	30,000	Total	
		Chevron U.S.A. Inc.		Ardmore	60,500
		Pascagoula	295,000	Total	381,500
		Ergon Refining Inc.		OKLAHOMA	
		Vicksburg	20,600	Barrett Refining Corp.	
		Petro Source Resources Inc.		Thomas	10,000
		Vicksburg	6,000	Conoco Inc.	
		Southland Oil Co.		Ponca City	136,000
		Lumberton	5,800	Kerr-McGee Refining Corp.	
		Sandersville	11,000	Wynnewood	43,000
		Total	368,400	Sinclair Oil Corp.	
		MONTANA		Tulsa	47,000
		Canex		Sun Co. Inc.	
		Laurel	33,650	Tulsa	85,000
		Conoco Inc.		Total	
		Billings	48,500	Ardmore	60,500
		Exxon Co. U.S.A.		Total	381,500
		Billings	42,000	OKLAHOMA	
		Montana Refining Co.		Barrett Refining Corp.	
		Great Falls	6,500	Thomas	10,000
		Total	130,650	Conoco Inc.	
		NEVADA		Ponca City	136,000
		Nevada Refining Co.		Kerr-McGee Refining Corp.	
		Tonopah	4,500	Wynnewood	43,000
		Total	4,500	Sinclair Oil Corp.	
		NEW JERSEY		Tulsa	47,000
		Amerada Hess Corp.		Sun Co. Inc.	
		Port Reading	0	Tulsa	85,000
		Chevron U.S.A. Inc.		Total	
		Perth Amboy	80,000	Ardmore	60,500
		Coastal Eagle Point Oil Co.		Total	381,500
		Westville	90,000	OKLAHOMA	
		Exxon Co. U.S.A.		Barrett Refining Corp.	
		Linden	130,000	Thomas	10,000
		Mobil Oil Corp.		Conoco Inc.	
		Paulsboro	100,000	Ponca City	136,000
		NEW MEXICO		Kerr-McGee Refining Corp.	
		Crystal Refining Co.		Wynnewood	43,000
		Carson City	3,000	Sinclair Oil Corp.	
		Marathon Petroleum Co.		Tulsa	47,000
		Detroit	68,500	Sun Co. Inc.	
		Total Petroleum Inc.		Tulsa	85,000
		Alma	42,000	Total	
		Total	113,500	Ardmore	60,500
		MINNESOTA		Total	381,500
		Ashland Oil Inc.		OKLAHOMA	
		St. Paul	67,100	Barrett Refining Corp.	
		Koch Refining Co.		Thomas	10,000
		St. Paul	180,000	Conoco Inc.	
		Total	247,100	Ponca City	136,000
		MISSISSIPPI		Kerr-McGee Refining Corp.	
		Amerada Hess Corp.		Wynnewood	43,000
		Purvis	30,000	Sinclair Oil Corp.	
		Chevron U.S.A. Inc.		Tulsa	47,000
		Pascagoula	295,000	Sun Co. Inc.	
		Ergon Refining Inc.		Tulsa	85,000
		Vicksburg	20,600	Total	
		Petro Source Resources Inc.		Ardmore	60,500
		Vicksburg	6,000	Total	381,500
		Southland Oil Co.		OKLAHOMA	
		Lumberton	5,800	Barrett Refining Corp.	
		Sandersville	11,000	Thomas	10,000
		Total	368,400	Conoco Inc.	
		MONTANA		Ponca City	136,000
		Canex		Kerr-McGee Refining Corp.	
		Laurel	33,650	Wynnewood	43,000

Company	b/d	Company	b/d	Company	b/d
OREGON		Koch Refining Co.		WASHINGTON	
Chevron U.S.A. Inc.		Corpus Christi	125,000	Arco Products Co.	
Willbridge	0	La Gloria Oil & Gas Co.		Ferndale	163,000
Total	0	Tyler	46,000	BP Oil Corp.	
PENNSYLVANIA		Leal Petroleum Corp.		(Formerly Mobil Oil Corp.)	
Atlantic Refining & Marketing Corp.		Nixon	15,900	Ferndale	77,400
BP Oil Corp.		Lyondell Petrochemical Co.		Chevron U.S.A. Inc.	
Marcus Hook	172,000	Houston	285,000	Richmond Beach	0
Chevron U.S.A. Inc.		Marathon Petroleum Co.		Shell Oil Co.	
Philadelphia	175,000	Texas City	69,500	Anacortes	84,000
Pennzoil Products Co.		Mobil Oil Corp.		Sound Refining Inc.	
Rouseville	15,700	Beaumont	275,000	Tacoma	0
Quaker State Oil Refining Corp.		Petrolite Corp.		Texaco Refining & Marketing Inc.	
Smethport	6,700	Kilgore	1,000	Anacortes	97,000
Sun Co. Inc.		Phillips 66 Co.		U.S. Oil & Refining Co.	
Marcus Hook	170,000	Borger	105,000	Tacoma	32,000
United Refining Co.		Sweeny	175,000	Total	453,400
Warren	60,000	Pride Refining Inc.		WEST VIRGINIA	
Witco Corp.		Abilene	28,500	Mid Atlantic Fuels Inc.	
Bradford	9,915	Shell Oil Co.		St. Mary's	4,658
Total	734,315	Deer Park	215,900	Quaker State Oil Refining Corp.	
TENNESSEE		Odessa	28,600	Newell	12,150
Mapco Petroleum Inc.		South Hampton Refining Co.		Total	16,806
Memphis	58,000	Silsbee	0	WISCONSIN	
Total	58,000	Southwestern Refining Co. Inc.		Murphy Oil U.S.A. Inc.	
TEXAS		Corpus Christi	104,000	Superior	32,000
Amoco Oil Co.		Star Enterprise		Total	32,000
Texas City	420,000	(Formerly Texaco Refining & Marketing Inc.)		WYOMING	
Champion Refining Co.		Port Arthur/Port Neches	250,000	Amoco Oil Co.	
Corpus Christi	130,000	Trifinery*		Casper	40,000
Chevron U.S.A. Inc.		Corpus Christi	0	Frontier Refining Co.	
El Paso	66,000	Unocal Corp.		Cheyenne	38,670
Port Arthur	329,000	Nederland	74,200	Little America Refining Co.	
Coastal Refining & Marketing Inc.		Valero Refining Co.		Evansville	24,500
Corpus Christi	90,000	Corpus Christi	0	Sinclair Oil Corp.	
Crown Central Petroleum Corp.		Total	3,896,950	Sinclair	54,000
Pasadena	100,000	UTAH		Wyoming Refining Co.	
Diamond Shamrock Refining & Marketing Co.		Amoco Oil Co.		Newcastle	12,555
Sunray	105,000	Salt Lake City	40,000	Total	169,725
Three Rivers	51,000	Big West Oil Co.		U.S. Total	15,011,824
Donna Refinery Partners Ltd.		North Salt Lake	24,000	PUERTO RICO	
Donna	E 4,750	Chevron U.S.A. Inc.		Phillips Puerto Rico Core Inc.	
El Paso Refining Co. Ltd.		Salt Lake City	45,000	Guayama	0
El Paso	25,500	Crysen Refining Inc.		Sun Co. Inc.	
Exxon Co. U.S.A.		Woods Cross	12,500	Yabucoa	85,000
Baytown	426,000	Pennzoil Products Co.		Total	85,000
Fina Oil & Chemical Co.		Roosevelt	8,000	VIRGIN ISLANDS	
Big Springs	55,000	Phillips 66 Co.		Amerada Hess Corp.	
Port Arthur	110,000	Woods Cross	25,000	St. Croix	470,000
Hill Petroleum Co.		Total	154,500	Total	470,000
Houston	65,000	VIRGINIA			
Hill Petroleum Co.		Amoco Oil Co.			
(Formerly Texas City Refining Co.)		Yorktown	51,000		
Texas City	119,600	Primary Oil & Energy Corp.			
Howell Hydrocarbons Corp.		Chester	3,700		
San Antonio	1,500	Total	54,700		

E=Estimated.

Source: Petroleum Supply Annual, 1999, Energy Information Administration.

Changes in U.S. Refinery Capacity in 1988

On Jan. 1, 1989, the United States had a total of 204 operable refineries. There were 11 shutdowns in 1988 and two refineries were reactivated. No new refineries were activated during 1988. Operable capacity was pegged at 15.7-million b/d, down slightly from

15.9-million b/d, the year-earlier level. The increase substantiated indications that large losses of previous years have been subdued if not reversed. Closings and reactivations resulted in a net loss in operable crude capacity of 260,000 b/d.

Refinery Shutdowns in 1988

Refinery	b/cd Crude Location	b/sd Downstream Distillation Capacity	Charge Capacity	Shutdown
Seminole Refining Corp.	St. Marks, Fla.	17,000	11,390	3/88
Kentucky Oil & Refining	Betsy Layne, Ky.	600	0	11/88
Motor Oils Refining	McCook, Ill.	1,500	1,200	2/88
Amber Refining Inc.	Ft. Worth, Texas	19,700	17,700	12/88
GAMXX Energy Inc.	Theodore, Ala.	27,000	10,000	3/88
Liquid Energy Corp.	Bridgeport, Texas	10,000	0	10/88
OGC Corp.	Egan, La.	5,000	0	10/88
Texas NAPCO Inc.	St. James, La.	17,000	20,000	12/88
Flying J Petroleum Inc.	Cutbank, Mont.	5,600	7,700	2/88
Mountaineer Refining Co., Inc.	LaBarge, Wyo.	350	0	6/88
West Coast Oil Co.	Oildale, Calif.	5,000	0	10/88
Caribbean Gulf Refining Corp.	San Juan, PR	36,000	57,800	12/88
Guam Oil & Refining Co., Inc.	Agana, Guam	43,900	1,400	12/88

Reactivated Refineries in 1988

Refinery	b/cd Crude Location	b/sd Downstream Distillation Capacity	Charge Capacity
American International Refining Inc.	Lake Charles, La.	27,000	21,600
Western Slope Refining Co.	Fruita, Colo.	15,200	27,100

Refinery Sales in 1988

Former Owner	Location	b/cd Crude Capacity	New Owner	Date of Sale
Agway Petroleum Corp.			Solomon, Inc.	8/88
Texas City Refg. Inc.	Texas City, Texas	119,600	Hill Petroleum Co.	
Apex Oil Co.			Horsham Corp.	11/88
Clark Oil & Refg. Corp.	Blue Island, Ill.	64,600		
	Hartford, Ill.	63,600		
Aweco, Inc.			American International Refining Inc.	7/88
Lake Charles Refg. Co.	Lake Charles, La.	27,000		
Coastal Corp.			Coastal Corp. (50%)	12/88
Pacific Refining Co.	Hercules, Calif.	55,000	Sinochem (50%)	
Coral Petroleum Co.			United Refg. Inc.	9/88
United Refg. Co.	Warren, Pa.	60,000		
Edgington Oil Co. Inc.	Long Beach, Calif.	41,600	Sulfur Mountain Corp.	6/88
Fletcher Oil & Refg. Co.	Carson, Calif.	29,500	Pauley Petroleum Inc.	3/88
Guam Oil & Refg. Co., Inc.	Agana, Guam	43,900	Shell Oil Corp.	11/88
Kerr-McGee	Dubach, La.	10,000	Endevco, Inc.	11/88
Macmillan Petroleum Co.	Signal Hill, Calif.	14,200	Chemoil Corp./Chemoil Refg. Corp.	8/88
Mobil Oil Corp.	Ferndale, Wash.	77,400	BP America Inc.	12/88
Paramount Petroleum Corp.	Paramount, Calif.	46,500	Paramount Acquisition Corp.	12/88
Tenneco Oil Co.	Chalmette, La.	145,000	Mobil Oil Corp.	12/88
Texaco, Inc.			Star Enterprise:	11/88
Texaco Refg. & Mktg.	Delaware City, Del.	140,000	Saudi Refg. Inc. (50%)	
	Port Arthur, Texas	250,000	Texaco, Inc. (50%)	
	Convent, La.	225,000		
	Wilmington, Calif.	65,000		
Union Pacific Resources Co.			Ultramar Refg.	12/88
Union Pacific Corp. (50%)			Petroleos De Venezuela (100%)	12/88
Petroleos De Venezuela (50%)	Corpus Christi, Texas			
Champlin Petroleum Co.		130,000		
Williams Companies			Coastal Corp.	7/88
Augusta Refg. Co.	Augusta, Kan.	0	Derby Refg. Co.	
Young Refg. Corp.			Asphalt Materials	2/88
Laketon Refg. Corp.	Laketon, Ind.	8,700		

b/cd=bbl. per calendar day; b/sd=bbl. per stream day

Source: Energy Information Administration, Petroleum Supply Annual 1988, published in May 1989.

Shell and Working Storage Capacities—1988

Shell Capacity (Add 000 bbl.) (a)

	Crude Oil	Gasoline			Fuel Oil		Asphalt and Road Oil	Total Products(b)	Total Crude Oil and Products
		Finished Leaded	Finished Unleaded	Blending Components	Middle Distillates	Residual Fuel Oil			
PAD District 1 Total	27,135	3,166	15,295	11,304	25,708	13,860	5,278	105,041	132,176
New Jersey	9,420	1,504	8,268	5,259	12,891	7,284	2,082	51,382	60,802
Pennsylvania	11,231	960	3,429	3,580	4,239	2,414	1,259	27,911	39,202
Other States(c)	6,424	702	3,598	2,465	8,578	4,162	1,937	25,748	32,172
PAD District 2 Total	27,903	10,062	19,050	18,160	25,602	6,309	12,155	149,508	177,411
Illinois	7,863	2,723	4,855	5,367	6,915	1,820	2,060	40,690	48,553
Indiana	2,943	691	2,617	2,924	3,409	1,459	1,636	21,504	24,447
Kansas	3,102	2,189	2,963	1,722	3,259	593	1,040	20,243	23,345
Ohio	3,789	518	2,106	2,891	1,855	423	903	14,612	18,401
Oklahoma	4,043	1,892	2,466	2,392	3,605	344	1,642	22,208	26,251
Other States(c)	6,163	2,049	4,043	2,864	6,559	1,670	4,874	30,251	36,414
PAD District 3 Total	98,335	9,399	34,444	35,568	45,992	21,096	7,461	329,286	427,601
Alabama	2,291	256	482	518	1,050	791	694	4,929	7,220
Arkansas	1,688	116	166	148	704	97	711	2,142	3,830
Louisiana	29,987	1,795	7,825	11,445	16,031	7,063	1,749	90,931	120,918
Mississippi	5,873	493	2,560	2,015	3,112	666	1,118	17,428	23,301
New Mexico	962	238	238	720	629	419	425	4,376	5,338
Texas	57,534	6,501	23,173	21,722	24,466	12,060	2,764	209,460	266,994
PAD District 4 Total	4,645	2,245	2,501	5,016	4,699	1,552	4,461	26,676	31,321
Colorado	788	353	401	619	612	237	593	3,947	4,735
Montana	1,286	788	561	1,700	1,300	255	1,909	8,542	9,828
Utah	1,462	408	719	1,150	1,123	216	456	5,871	7,333
Wyoming	1,109	696	820	1,547	1,664	844	1,503	8,316	9,425
PAD District 5 Total	46,190	4,459	12,240	18,027	12,766	14,236	4,201	121,434	167,624
Alaska	1,103	86	255	291	847	1,173	92	3,713	4,816
California	32,632	3,155	10,120	14,949	8,984	10,189	3,159	96,734	129,366
Washington	8,318	1,163	1,697	2,096	2,342	1,436	351	15,984	24,302
Other States(c)	4,137	55	168	691	593	1,438	599	5,003	9,140
U.S. Total	204,208	29,331	83,530	99,075	114,767	57,053	33,556	731,925	936,133(d)

Working Storage Capacity (Add 000 bbl.) (a)

	Crude Oil	Gasoline			Fuel Oil		Asphalt and Road Oil	Total Products(b)	Total Crude Oil and Products
		Finished Leaded	Finished Unleaded	Blending Components	Middle Distillates	Residual Fuel Oil			
PAD District 1 Total	23,508	2,874	13,839	8,819	23,748	12,845	4,752	94,769	118,277
New Jersey	8,119	1,380	7,513	4,463	11,871	6,682	1,824	46,350	54,469
Pennsylvania	9,907	842	2,988	3,122	3,784	2,165	1,096	25,004	34,911
Other States(c)	5,482	652	3,338	2,234	8,093	3,998	1,832	23,415	28,897
PAD District 2 Total	24,740	9,001	16,726	15,968	23,654	5,776	11,194	134,755	159,495
Illinois	6,854	2,300	4,144	4,650	6,392	1,693	1,932	35,921	42,775
Indiana	2,536	632	2,279	2,479	3,033	1,336	1,423	19,122	21,658
Kansas	2,849	2,074	2,665	1,563	3,069	540	952	18,818	21,667
Ohio	3,377	435	1,761	2,407	1,678	325	840	12,786	16,163
Oklahoma	3,503	1,670	2,223	2,255	3,291	312	1,476	20,040	23,543
Other States(c)	5,621	1,890	3,654	2,614	6,191	1,570	4,571	28,068	33,689
PAD District 3 Total	82,708	5,243	29,939	31,460	40,860	18,602	6,462	288,434	371,142
Alabama	1,901	221	405	478	907	666	567	4,184	6,085
Arkansas	1,525	104	149	138	652	86	644	1,954	3,479
Louisiana	24,060	1,516	6,458	9,243	13,864	6,254	1,485	77,875	101,935
Mississippi	5,203	447	2,392	1,912	2,897	613	963	16,083	21,286
New Mexico	847	200	192	560	532	350	419	3,839	4,686
Texas	49,172	5,755	20,343	19,029	22,008	10,633	2,384	184,499	233,671
PAD District 4 Total	4,228	2,024	2,246	4,539	4,409	1,469	4,232	24,583	28,811
Colorado	731	324	366	566	583	217	576	3,646	4,377
Montana	1,104	700	494	1,508	1,201	233	1,743	7,769	8,873
Utah	1,330	356	612	1,022	1,047	200	447	5,297	6,627
Wyoming	1,063	644	774	1,443	1,578	819	1,466	7,871	8,934
PAD District 5 Total	39,177	3,710	10,562	15,492	11,501	12,920	3,826	106,741	145,918
Alaska	1,037	82	241	277	809	1,124	89	3,544	4,581
California	27,004	2,524	8,647	12,735	7,993	9,109	2,828	84,230	111,234
Washington	7,330	1,054	1,519	1,832	2,143	1,318	339	14,252	21,582
Other States(c)	3,806	50	155	548	556	1,369	570	4,715	8,521
U.S. Total	174,361	25,852	73,312	77,278	104,172	51,612	30,466	649,282	823,643(d)

(a) Shell capacity is the design capacity of a tank; working capacity is the difference between the maximum safe fill capacity and tank bottoms; (b) Total products include ethane, isobutane, pentanes plus other hydrocarbons, hydrogen, alcohol, unfinished oils, finished aviation gasoline, special naphthas, coke, wax, still gas, petrochemical feedstocks, and miscellaneous products; (c) Other states include: PAD 1—Connecticut, Delaware, Florida, Georgia, Maryland, New York, North Carolina, Virginia and West Virginia; PAD 2—Minnesota, Missouri, North Dakota, Tennessee and Wisconsin; PAD 5—Hawaii, Nevada and Oregon; (d) Includes 24.3-million bbl. at shutdown refineries and 40.5-million bbl. at gasoline blending plants.

Source: Energy Information Administration, Petroleum Supply Annual 1988, published in May 1989.

U.S. REFINING CAPACITY 1979-1989

(in thousands of b/d)

—OPERABLE REFINERIES—

(As of Jan. 1 of each year)

Year	No. of Refs.	Chng. from Prec. Year	Operable Capacity	Chng. from Prec. Year
1989	204	-9	15,655	-251
1988	213	-6	15,916	+350
1987	219	+3	15,566	+107
1986	216	-7	15,459	-200
1985	223	-24	15,659	-478
1984	247	-11	16,137	-722
1983	258	-43	16,859	-1,030
1982	301	-23	17,890	-731
1981	324	+5	18,621	+632
1980	319	+8	17,989	+547
1979	311	+9	17,441	+393

Source: Energy Information Administration, Petroleum Supply Annual 1988, plus industry sources for supplemental data.

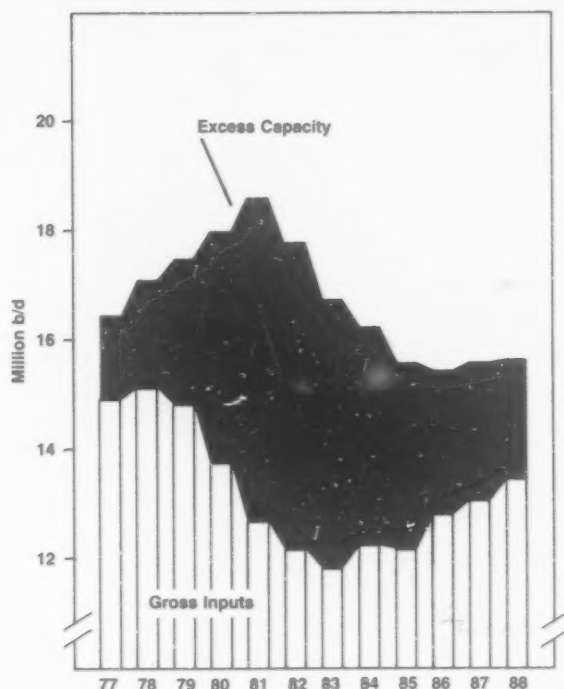
—INPUTS AND UTILIZATION—

(Avg. for calendar year)

Year	Gross Input	Percent Utilized	Percent Idle	Excess Volume
1989	13,563	86.5%	13.5%	2,092
1988	13,447	84.4	15.6	2,459
1987	13,003	83.1	16.9	2,690
1986	12,826	83.0	17.0	2,633
1985	12,165	77.6	22.6	3,494
1984	12,216	76.2	23.8	3,921
1983	11,947	71.7	28.3	4,912
1982	12,172	69.8	30.2	5,718
1981	12,751	68.5	31.5	5,870
1980	13,834	76.9	23.1	4,153
1979	14,955	85.7	14.3	2,486

Source: See above footnote.

Gross Inputs and Excess Capacity



Source: For 1975 through 1986, Energy Information Administration, Annual Energy Review, 1986. For 1987-88, Petroleum Supply Annual, 1988.

Refinery Capacity Down, Inputs Up

Domestic refining capacity was down slightly in 1988, according to the Energy Information Administration's 1988 Petroleum Supply Annual. However, pushing against this reduced capacity were upticks in refinery gross inputs and capacity utilization, both reaching new heights since 1980 and 1979 respectively.

Through Jan. 1, 1989 refining capacity dropped 1.6% to from the Jan. 1, 1988 level to 15.7-million b/d. There were two reasons for this, EIA reports. First, 11 refineries were shut down in 1988 while only two were reactivated. This net loss of nine refineries—the U.S. total declined to 204 operating plants as shown in the table above—led to a reduction of operable capacity of about 67,000 b/d. The 11 closed refineries, mostly smaller units, had a total capacity of 109,000 b/d while the two reactivated units put 42,000 b/d of capacity

back into the pool.

In addition, EIA says, several operating refineries either downgraded their crude distillation capacity or permanently shut down capacity that had been listed as idle for the past few years, resulting in a further decrease of about 194,000 b/d. Chevron, for example, reduced its total operable capacity by 242,000 b/d in a major streamlining effort, which in itself would account for most of the total capacity decline.

With total petroleum product on the rise, refinery utilization rates have also been ratcheting up a couple of percentage points or so each year since the early 1980s. From a low 68.5% utilization rate in 1981, U.S. refineries reached a level of 86.5% utilization in 1989. This, of course, served to narrow the gap between capacity and utilization, reducing the burdensome excess volume of 5.9-million b/d in 1981 to only

2.1-million b/d by 1989.

Refinery yields as reported by EIA were fairly steady in 1988. Gasoline yields were down slightly—from 46.4% in 1987 to 46.0% in 1988. However, EIA reports refiners input 390,000 b/d more crude and unfinished oils in 1988 to produce roughly the same yield of gasoline. This was partly due to the increased production of premium unleaded gasoline, since raising the octane level results in greater processing losses.

The annual yield of distillate fuel oil has remained fairly steady since 1978, EIA points out. The 1988 yield of 20.8% was a little higher than 1987's 20.5%. Yields of residual fuel oils (6.7% in 1988) are edging up again after declining from 11.7% in 1980 to 6.6% in 1987. Refinery yields of jet fuel increased from 7.4% in 1980 to 10% in 1987 and 1988.